

PSYCHOLOGICAL ABSTRACTS

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GENERAL (incl. Statistics)

1. Adler, M. J. **What man has made of man.** New York: Longmans, Green, 1937. Pp. ix + 246. \$3.50.—The central issue of the book is the relation of science and philosophy, with special emphasis upon the relation of psychology and philosophy. The existence of "schools" of psychology and the lack of a commonly defined subject matter results from the fact that psychology is a branch of philosophy as well as a special science. This follows from the fact that it is the only branch of knowledge in which man is both the knower and the known; until this fact becomes recognized, there can be little progress in the field of psychology. A critical introduction is supplied by Franz Alexander, director of the Institute for Psychoanalysis in Chicago.—*J. J. Brockwell* (Brown).
2. Ansbacher, H., & Ansbacher, R. R. **Alfred Adler: 1870-1937.** *Sociometry*, 1937, 1, 259-261.—*L. J. Stone* (Sarah Lawrence College).
3. Aveling, F. **Psychology; the changing outlook.** London: Watts, 1937. Pp. vi + 152. 2/6 net.—First a brief account is given of the origins of systematic psychology and of some of the older intellectual theories. Then noogenesis, psychoanalysis, Gestalt and organismal psychology, hormic psychology and purposivism, and introspectionism and behaviorism are concisely expounded, with references to fuller accounts elsewhere. Modern applications of psychology to education, to industry, to medicine, and to criminology are discussed, and finally a brief attempt to look forward and indicate some of the most likely lines of future advance is made. The book is intended as an introductory account of current psychological movements for any serious person interested in this branch of knowledge.—*F. C. Bartlett* (Cambridge, England).
4. Becker, O. **Husserl und Descartes.** *Arch. Rechts-Sozialphil.*, 1937, 30, 152.—*P. L. Krieger* (Leipzig/Munich).
5. Benjamin, A. C. **The logical structure of science.** London: Kegan Paul, 1936. Pp. 344. 10/6 net.—This is a very general and philosophical discussion of the nature of science, its place in relation to other methods of acquisition of knowledge, its concepts, and its methods.—*F. C. Bartlett* (Cambridge, England).
6. Bills, A. G. **Proceedings of the twelfth annual meeting of the Midwestern Psychological Association.** *Psychol. Bull.*, 1937, 34, 573-579.—*R. H. Brown* (Clark).
7. Black, M. **Vagueness.** *Phil. Sci.*, 1937, 4, 427-455.—Instead of pronouncing scientific terms inapplicable to the world of experience we can measure their degree of precision. To do this we record the decisions made by users of the language in question concerning the applicability or non-applicability of each term to a series of objects. The results may be exhibited by constructing a curve, which the author calls "a consistency profile." The method is illustrated by the description of an experiment: On a sheet of paper rectangles are arranged from left to right in the order of increasing width and diminishing height. The subjects are then asked to divide the series at "the most natural place." Inspection reveals that this vague phrase covers at least three criteria for dividing the series. The author tabulates the number of persons making the division at each place.—*R. H. Dotterer* (Pennsylvania State).
8. Boring, E. G. **A psychological function is the relation of successive differentiations of events in the organism.** *Psychol. Rev.*, 1937, 44, 445-461.—The organism is conceived as a series of open communicating systems, transmitting action in the direction of stimulus to response, and hence causally related. The typical psychic function, discrimination, consists in the differentiation in a "consequent" system which adequately reflects that in a "prior" system. It can be begun, continued or ended at any point in the nervous system. Psychoneural isomorphism becomes a meaningless concept, because the psyche cannot be treated as a system differentiated from the brain. The same argument refutes psychophysical parallelism. Also the ambiguous concept of consciousness is rendered superfluous, if we speak rather in terms of the dependence of the differentiation in one neural system upon the differentiation in another.—*A. G. Bills* (Cincinnati).
9. Buchtal, F. **Erzeugung von symmetrischen Doppelstößen zur elektrischen Reizung unter Vermeidung von mechanischen Kontakten.** (Producing symmetrical shocks for electrical stimulation without mechanical contact.) *Skand. Arch. Physiol.*, 1937, 77, 158.—A simple arrangement is described by which symmetrical electric shocks may be produced for the purpose of physiological stimulation which do not necessitate mechanical contacts of any sort.—*P. L. Krieger* (Leipzig/Munich).
10. Burkamp, W. **"Das denkende Ich Descartes."** (The thinking ego of Descartes.) *Arch. Rechts-Sozialphil.*, 1937, 30, 3.—*P. L. Krieger* (Leipzig/Munich).
11. Burloud, A. **Psychologie et biologie.** (Psychology and biology.) *Rev. Métaphys. Morale*, 1937,

- 2, 411-256.—The close parallelism between psychological and biological phenomena, which is adhered to by most biologists with a view to seeking a physical-chemical explanation of life, can be a target for many objections. The relaying of nervous impulses, reflex action, and the psychophysiology of sensation and perception, are all phenomena with roots in the psychic life; however, in order to understand the passage from the physical into the mental, it is necessary to introduce into biology the triple point of view of quality, form and duration. Psychology, in order to be helpful, must involve action, free from mechanistic and materialistic prejudice; it should retain Janet's ideas of tendencies and development, Köhler's views on form and the organic whole, and Bergson's conception of duration. There is continuity between the psychological and biological life, but it is a continuity of the more general aspects only. "The vital and the physical tendencies have in common only the fact of being derived from effort and being fixed by habit."—G. Goldman (Sorbonne).
12. Coe, S., & Lehrer, R. [Eds.] *Psychologists' league journal*. New York: Psychologists' League, 325 East 37th Street. Vol. 1, No. 1, January, 1937. Bimonthly. \$1.00 per volume.—R. R. Willoughby (Brown).
13. Cory, D. The cardinal tenets of common sense. *J. Phil.*, 1937, 34, 533-541.—All scientific theory, including such basic positions as the causal theory of perception, depend on the three cardinal tenets of common sense. These are: (1) the independent existence of physical objects; (2) the existence of fellow-minds; and (3) more or less trustworthy regularities of cause and effect in nature. Neither intellection nor sensation convinces us of these tenets, but certain "significant feelings." In ordinary life it is doubtless some psychological complex of visual and muscular data suffused by that tone of feeling akin to belief that leads to common-sense conclusions about the outer world. The positivists err in mistaking mere words for significant states of mind in the analysis of the "first-order propositions" of common sense.—J. Miller (Harvard).
14. Cramer, H. *Random variables and probability distributions*. New York: Macmillan, 1937. Pp. 129. \$2.25.—R. R. Willoughby (Brown).
15. Davis, F. C. *Proceedings of the Western Psychological Association, Claremont, California, June 18-19, 1937*. *Psychol. Bull.*, 1937, 34, 553-567.—R. H. Brown (Clark).
16. Edgerton, H. A., & Starbuck, E. O. A table to aid in the computation of Fisher's "t" function for comparison of two means. *Psychometrika*, 1937, 2, 77-84.—The table, derivations leading to its construction, and the necessary instructions for its use are given.—(Courtesy *Psychometrika*).
17. Ehrenfels, C. v. On Gestalt-qualities. *Psychol. Rev.*, 1937, 44, 521-525.—The theory of Gestalt-qualities arose from the attempt to explain melody as distinct from the notes. When the memory images of successive notes are present as a simultaneous complex in consciousness, then a unitary idea can arise. The idea of this whole belongs to a new category, for which the name "founded contents" came into use.—A. G. Bills (Cincinnati).
18. Erxleben, W. *Erlebnis, Verstehen und geschichtliche Wahrheit*. (Experience, understanding, and historical truth.) Berlin: Junker u. Dünhaupt, 1937. Pp. 199. RM. 9.—R. R. Willoughby (Brown).
19. Forbes, M. L. H. The typewriter key as a device for registering choice: timing. *J. genet. Psychol.*, 1937, 50, 463-464.—Description of apparatus.—E. Heiddreder (Wellesley).
20. Garth, T. R. *Proceedings of the Rocky Mountain Branch of the American Psychological Association*. *Psychol. Bull.*, 1937, 34, 580-583.—R. H. Brown (Clark).
21. Gehlen, A. Die Bedeutung Descartes' für eine Geschichte des Bewusstseins. (The significance of Descartes for a view of consciousness.) *Arch. Rechts-Sozialphil.*, 1937, 30, 37.—P. L. Krieger (Leipzig/Munich).
22. Geldard, F. A. *Proceedings of the thirty-second annual meeting of the Southern Society for Philosophy and Psychology*. *Psychol. Bull.*, 1937, 34, 568-572.—R. H. Brown (Clark).
23. Gengerelli, J. A. Experiments toward a metric for mental functions. *Psychol. Bull.*, 1937, 34, 561-562.—Abstract.—R. H. Brown (Clark).
24. Gibson, A. B. Can reason influence conduct? *Aust. J. Psychol. Phil.*, 1937, 15, 161-183.—The currently favored contention that reason does not influence conduct presupposes a faulty and inadequate conception of reason. Reason is "a specific desiring factor, acting as a nucleus for the integration of desires in general." Viewed in this way, reason can influence conduct by making discoveries about desires and their interrelations. Reason is neither a substance nor a faculty; its inseparability from the rest of mental life must be taken seriously.—H. D. Spoerl (American International College).
25. Gilchrist, F. G. The nature of organic wholeness. *Quart. Rev. Biol.*, 1937, 12, 251-270.—The whole precedes the parts and gives them their meaning. Parts may become wholes through integration with other units. In organic wholes the whole exists first and the part differentiates from the whole. Concepts of wholes are configurational or historical. Both viewpoints are abstractions from the total process of development. The organism is neither pure Gestalt nor pure history, but both. It is first a self-regulating system or Gestalt, since it is occupied by a simple, labile, unified field; second it is reversible history, since within this field local differentiation creates manifoldness and stability.—O. W. Richards (Spencer Lens Company).
26. Hammett, F. S., & others. [Eds.] *Growth: a journal for studies of development and increase*. Menasha, Wis.: George Banta Publ. Co. Vol. 1, Nos. 1-6, April, 1937. \$3.50 per volume of 400 pages.—R. R. Willoughby (Brown).

27. Hartmann, N. *Gedächtnisrede auf Carl Stumpf*. (Address in memory of Carl Stumpf.) Berlin: Akad. d. Wissenschaften; de Gruyter in Komm., 1937. Pp. 6. RM. .50.—R. R. Willoughby (Brown).

28. Heyde, J. E. *Die Bedeutung der cartesischen Lehre vom Verhältnis zwischen Leib und Seele für die Philosophie der Gegenwart*. (The significance of the Cartesian doctrine of the relation between body and mind for present-day philosophy.) *Arch. Rechts-Sozialphil.*, 1937, 30, 48.—P. L. Krieger (Leipzig/Munich).

29. Higginson, G. D. The place of meaning in psychology. *Psychol. Rev.*, 1937, 44, 491-505.—A discussion of the inconsistencies and inadequacies in the treatment of meaning by Titchener and by those psychologists, Boring, Fernberger, etc., whose recent texts preserve these inconsistencies. Titchener considers conscious content as such meaningless, and assigns the role of meaning to the "fringe" of associated imagery, etc., which as content is itself meaningless. When he is unable to discover any introspectable content present in cases in which he has obviously responded meaningfully to stimulus situations, he relegates meaning to the function of the nervous processes themselves. But careful experimentation on thinking fails to reveal any meaningless contents as carriers of meaning. Meaningful properties emerge directly. Psychology must cease to identify meaning with "meaningless" content and treat meaningful properties of objects as the direct products of brain functioning.—A. G. Bills (Cincinnati).

30. Holzinger, K. J., & Harman, H. H. Relationships between factors obtained from certain analyses. *J. educ. Psychol.*, 1937, 28, 321-345.—This paper lists seven criteria for the selection of a factorial solution for any given matrix of intercorrelations, and presents and compares the characteristics of three orthogonal and two oblique systems of factor axes. As a preliminary to the comparison of the factor methods the authors present a distinction between a "factor structure," which is a table of correlations of the test with the factor vectors, and a "factor pattern," which is a set of equations expressing the tests as linear functions of the factors. The results obtained with the various methods of analysis are revealed with the aid of an hypothetical example, and the relationships between the factors so obtained are shown "by equating two linear expressions for the same test from different factor patterns and from a sufficient number of such equalities to solve for one group of factors in terms of the other."—A. W. Melton (Missouri).

31. Jacobs, N. Physicalism and sensation sentences. *J. Phil.*, 1937, 34, 602-611.—Physicalism or logical positivism, as represented by Carnap, insists that knowledge is limited to what is intersubjectively communicable. Sensations (in the naïve sense) are not intercommunicable, and expressions like "I know how you feel" are by this criterion either illegitimate and meaningless, or, if meaningful, they

are completely interpretable on a behavioristic basis. Given the physicalist definition of knowledge, physicalism is consistent, consonant with scientific method, and irrefutable. But people must interpret sensation sentences naïvely, so they are interpretable on two levels, the physicalist level and the intuitive level of relevant psychological, denotative association. Physicalism is wrong in denying the existence of sensations (in the naïve sense which cannot be accounted for intersubjectively), for without them even language becomes impossible.—J. G. Miller (Harvard).

32. Katkov, G. Descartes und Brentano. *Arch. Rechts-Sozialphil.*, 1937, 30, 116.—P. L. Krieger (Leipzig/Munich).

33. Klopfer, B. [Ed.] *Rorschach research exchange*. New York: Bruno Klopfer, 3820 Waldo Avenue. Vol. 1, No. 1, September, 1936. Mimeographed. \$3.00 per year.—R. R. Willoughby (Brown).

34. Kuder, G. F. Nomograph for point biserial r , biserial r , and fourfold correlations. *Psychometrika*, 1937, 2, 135-138.—The nomograph is presented, with instructions for use.—(Courtesy *Psychometrika*).

35. Lahy, J. M. Une table spéciale pour l'application des tests psychomoteurs. (A special table for administering psychomotor tests.) *Travail hum.*, 1937, 5, 317-318.—The height of the table may be adjusted by means of a parallelogram hinged at each corner and actuated by a toothed sector which may be held in any position by a pawl on a foot pedal.—H. E. Burt (Ohio State).

36. Ledermann, W. On the rank of the reduced correlational matrix in multiple-factor analysis. *Psychometrika*, 1937, 2, 85-93.—Since the factor problem is reduced mathematically to the expression of the obtained correlational matrix in terms of a matrix of lower rank, criteria for the determination of this lower rank are of first importance. These criteria are investigated by means of certain mathematical deductions, and brought into relation with Spearman's and Thurstone's factor theories.—(Courtesy *Psychometrika*).

37. Lewis, N. D. C. William A. White: 1870-1937. *Sociometry*, 1937, 1, 255-258.—L. J. Stone (Sarah Lawrence College).

38. Lindsay, R. B. A critique of operationalism in physics. *Phil. Sci.*, 1937, 4, 456-470.—R. H. Dotterer (Pennsylvania State).

39. Maberly, A. *Commonsense and psychology*. London: Muller, 1936. Pp. 160. 5/- net.—A number of short popular discussions dealing with self-knowledge and its value; mental mechanisms; some psychological types; sex; parenthood and the child; will and imagination; some popular illusions; intelligence and education; death; and the conquest of fear and guilt.—F. C. Bartlett (Cambridge, England).

40. Marshall, H. E. *Dorothea Dix: a forgotten Samaritan*. Chapel Hill: Univ. North Carolina Press, 1937. Pp. 298. \$3.50.—R. R. Willoughby (Brown).

41. Matsumoto, M. *Shinrigaku-shi*. (History of psychology.) Tokyo: Kaizosha, 1937. Pp. 481. Y. 4.20.—Psychologies of the ancient, medieval, recent and present-day periods are followed by the story of the development of the science in Japan.—R. Kuroda (Keijo).
42. Mosak, J. L. On the simultaneous determination of the elementary regressions and their standard errors in subsets of variables. *J. Amer. statist. Ass.*, 1937, 32, 517-524.—A method of computation based on the Doolittle method is presented, and modifications for obtaining regression coefficients and their standard errors in subsets of variables without repeating the major part of the computations are described. A method for determining whether or not a new variable, when added to a composite, will possess a significant weight, is presented. The test is shown to depend only on the zero-order correlation between the new variable and the criterion, and to be independent of the intercorrelations. Hence it is not necessary to compute the latter, or the weight itself, to find out whether this weight will be significant.—E. E. Cureton (Alabama Polytechnic Institute).
43. Murphy, G. [Ed.] *Sociometry: a journal of inter-personal relations*. Beacon, N. Y.: J. L. Moreno. Vol. 1, Nos. 1 & 2, 1937. Quarterly. \$5.00.—L. J. Stone (Sarah Lawrence College).
44. Peek, R. L., Jr. Test of an observed difference in the frequency of two results. *J. Amer. statist. Ass.*, 1937, 32, 532-536.—"If the possible results of a test are A, B, C, etc., A and B may be observed to occur in a sample with proportional frequencies p and p' respectively. If the probabilities, or proportional frequencies in the universe, of A and B are P and P' respectively, the question relates to the significance of the difference $p - p'$, or the extent to which it may differ from the true value $P - P'$." It is shown that the mean difference in samples is equal to the difference between the true proportions, and the standard error of the sample differences is derived.—E. E. Cureton (Alabama Polytechnic Institute).
45. Ragusa, T. J. The substance theory of mind and contemporary functionalism. *Phil. Stud.*, 1937, No. 35. Pp. viii + 101.—A doctoral thesis. The author attempts "to present a critical estimate of the respective claims of the philosophy of Thomas Aquinas, on the one hand, and of contemporary functionalism as it is exemplified in the pragmatic empiricism of John Dewey, on the other, each to regard Aristotle as the common source of their radically opposed theories of the nature of mind." He also argues for "the superiority of the Thomistic synthesis over its modern rival."—K. S. Yum (Chicago).
46. Rogers, H. W. Proceedings of the eighth spring meeting, Eastern Branch, American Psychological Association. *Psychol. Bull.*, 1937, 34, 510-552.—R. H. Brown (Clark).
47. Ruja, H. On the possibility of knowledge. *New Scholast.*, 1937, 11, 237-246.—The possibility of philosophy depends upon the possibility of knowledge. The possibility of knowledge cannot be demonstrated but must be postulated, for any attempted demonstration begs the question. Carnap, Wittgenstein, and Lewis deny logical truth, and in so doing they must deny all truth. Insofar as it is systematic and successful science is logical. The greater portion of knowledge may be as probable and "fallibilistic" as one may wish, but if there is to be any knowledge at all, then somewhere there must be an absolute.—M. F. Martin (West Springfield, Mass.).
48. Steinberg, W. *Psychologie als Wissenschaft von der Seele*. (Psychology as the science of the mind.) Leipzig: Quelle & Meyer, 1937. Pp. 114. RM. 3.—R. R. Willoughby (Brown).
49. Thorndike, E. L. On correlations between measurements which are not normally distributed. *J. educ. Psychol.*, 1937, 28, 367-370.—The author considers the advantages and disadvantages of four methods for determining the correlation of two series of measures when one or both are skewed and the units of measurement must be left undisturbed. Data are presented on the relative magnitudes of product-moment r 's and r 's computed from the percentage of like-signed pairs of measures when one or both of the distributions are skewed. The r obtained from like-signed pairs is greater, and this method may give the truer measure of interdependence, since the product-moment r suffers unavoidable attenuation when the distributions are skewed. The author concludes: "Any one of these four courses seems to me to be better than to profess inability because the data are too irregular."—A. W. Mellon (Missouri).
50. Thurstone, L. L. Current misuse of the factorial methods. *Psychometrika*, 1937, 2, 73-76.—Papers involving factorial methods appearing in current literature often misuse them. These meaningless results are reached because of neglect of certain conditions basic to factor theory. These conditions are: (1) the number of basic factors must be smaller than the number of tests; (2) the diagonals of the correlation matrix must be regarded as unknown; (3) the axes must be rotated into a simple configuration; (4) each factor must be overdetermined by appearance in several tests; and (5) tests should have simple factorial composition.—(Courtesy *Psychometrika*).
51. Todd, J. W. Is epiphenomenalism dead? *Psychol. Bull.*, 1937, 34, 557-558.—Abstract.—R. H. Brown (Clark).
52. Uspensky, J. V. *Introduction to mathematical probability*. New York: McGraw-Hill, 1937. Pp. 420. \$5.00.—R. R. Willoughby (Brown).
53. [Various]. *Fascicolo 'in memoriam' di Mario Carrara*. (Number in memory of Mario Carrara.) *Arch. Antrop. crim.*, 1937, 57, 319-544.—An appreciation of Mario Carrara (1866-1937), containing one reprint of his work and about 70 short articles by authors chiefly from Europe and Latin America.

Portrait, and a bibliography of 154 titles (1892-1937).—C. J. Herrick (Pennsylvania).

54. Volland, E. Die Stellung des Menschen in der naturwissenschaftlichen und in der philosophischen Anthropologie der Gegenwart. (The place of man in the scientific and in the philosophical anthropology of the present time.) Halle: Akad. Verlag, 1936. Pp. 67. RM. 3.00.—P. L. Krieger (Leipzig/Munich).

55. Wilson, D. P. A new type instrument for polygraphic recording. *Psychol. Bull.*, 1937, 34, 565-566.—Abstract.—R. H. Brown (Clark).

56. Zubin, J. The statistics of card guessing. *Psychol. Bull.*, 1937, 34, 548-549.—Abstract.—R. H. Brown (Clark).

[See also abstracts 250, 361, 484.]

NERVOUS SYSTEM

57. Auster, U. Über den Erregungsablauf im sensiblen menschlichen Nerven. (The waning of excitation in human sensory nerves.) *Pflüg. Arch. ges. Physiol.*, 1937, 239, 97-106.—By the use of two equal direct current stimuli separated by time intervals of various duration, it is found that after stimulation of the middle finger a relative refractory period sets in, followed after some 0.4 msec. by an absolute refractory period; this in turn is followed in about 3.0 msec. by a second relative refractory period.—M. A. Rubin (Worcester State Hospital).

58. Blasum, F. Über die Erregung des Atemzentrums durch die Sympathicusreizmittel. (The excitation of the respiratory center by means of substances which stimulate the sympathetic.) *Werne a. d. Lippe: Grube*, 1935. Pp. 27.—R. R. Willoughby (Brown).

59. Bojar, S. The effects of bilateral removal of the striate areas of the cortex upon visually controlled nystagmus in the cat. *Psychol. Bull.*, 1937, 34, 538-539.—Abstract.—R. H. Brown (Clark).

60. Clark, S. L. A prolonged after-effect from electrical stimulation of the cerebellar cortex in unanaesthetized cats. *Science*, 1937, 86, 377-379.—By means of stimulation through electrodes buried in the skull responses resembling the slow motion moving pictures were brought about. The responses sometimes last for several minutes and vary with the intensity of stimulation and the placement in the cerebellum.—F. A. Mole, Jr. (Brown).

61. Giersberg, H. Gehirntransplantationen bei Amphibien. (Brain transplantations in amphibia.) *Zool. Anz.*, 1935, 8, Suppl. Bd., 160-168.—A *Rana arvalis* brain was successfully replaced by a *Pelobates* brain in two living animals. While one frog was only externally similar to a toad after the operation, the other animal, with his *Pelobates* brain, developed a toad-like motility and an instinct for burying himself, far exceeding the habits of a swamp frog. The animals died a year later from the results of winter conditions, which in themselves are severe for small frogs.—P. L. Krieger (Leipzig/Munich).

62. Kreezer, G., & Smith, F. W. Brain potentials in the hereditary type of mental deficiency. *Psychol. Bull.*, 1937, 34, 535-536.—Abstract.—R. H. Brown (Clark).

63. Kreht, H. Cytoarchitektonik und motorisches Sprachzentrum. (Cytoarchitectonics and the motor speech center.) *Z. mikr.-anat. Forsch.*, 1936, 39, 331.—P. L. Krieger (Leipzig/Munich).

64. Lewis, T. The nocifensor system of nerves and its reactions. *Brit. med. J.*, 1937, Part 1, 431-435; 491-494.—Evidence is presented for a hitherto unknown system of nerves, supplying the skin and the mucous membranes, which is capable of effecting local changes without reference to the central nervous system. These nerves are probably capable of liberating substances from the cellular elements of the skin into the surrounding area and controlling certain factors in defence, including inflammation.—D. J. Ingle (Mayo Foundation).

65. Maier, N. R. F., & Sabom, M. V. The effect of the shape of cortical lesions on reasoning in rats. *J. comp. Psychol.*, 1937, 24, 21-48.—31 rats were subjected to round lesions and 27 to elliptical lesions with the long axis in the medial-lateral direction. The aim of this experiment was to determine why, as previously discovered, elliptical lesions with the long axis in the anterior-posterior direction cause fewer postoperative errors than round ones of equal size. Greater disturbance from the round than from the elliptical lesions of the present investigation would suggest that differently shaped lesions have "different dynamic properties." The opposite result would, according to the authors, suggest that disturbances from lesions of different shape are due to the differential interruption of association fibers. The decrease in accuracy following round lesions was 15% greater than that following elliptical ones of approximately the same size. The authors conclude that "cortical function has important dynamic properties and that lesion shape as well as lesion mass interferes with its function. Since both large and round cortical lesions produce more deterioration than small and elongated ones, it is suggested that the concentration of cortical injury is the important factor in producing deterioration in complex behavior functions." Bibliography.—N. L. Munn (Peabody).

66. Meyers, R. The concepts of equipotential brain functioning and specific localization as applied to human neurosurgery. *Psychol. Bull.*, 1937, 34, 537.—Abstract.—R. H. Brown (Clark).

67. Raney, E. T. Bilateral brain potential records and lateral dominance in identical twins. *Psychol. Bull.*, 1937, 34, 534.—Abstract.—R. H. Brown (Clark).

68. Roessle, R. Zur Frage der Ähnlichkeit des Windungsbildes an Gehirnen von Blutsverwandten, besonders von Zwillingen. (The question of the similarity of the convolutions of the brain in blood-relatives, particularly in twins.) *S. B. preuss. Akad. Wiss.*, 1937, 14, 145.—P. L. Krieger (Leipzig/Munich).

69. Smith, J. R. The origin and genesis of rhythm in the electroencephalogram. *Psychol. Bull.*, 1937, 34, 534-535.—Abstract.—R. H. Brown (Clark).

70. Travis, L. E. Brain potentials and the temporal course of consciousness. *J. exp. Psychol.*, 1937, 21, 302-309.—The problem of the present study was to determine the relationship, for a given person, between the size of his brain waves and the temporal course of consciousness as revealed by his introspective reports. At a certain moment the subject was given a signal (the spoken word *now*) to report what conscious state, if any, the signal interrupted. He had been instructed previously to relax and permit his mind to wander. Brain potentials were recorded by an ink-writing undulator. A quantitative analysis of the records reveals that visual images, kinesthetic sensations, and mental effort are associated with relatively small brain potentials, while mental blankness and abstract thinking are associated with relatively large ones. Organic sensations and mixed images are not related significantly to any one size of wave. Because of their infrequency of occurrence, other mental processes were not treated quantitatively.—H. W. Karn (Pittsburgh).

71. Travis, L. E., & Knott, J. R. Brain potential studies of perseveration: II. Perseveration time to visually presented words. *J. exp. Psychol.*, 1937, 21, 353-358.—In this study the duration of perseveration is considered as the length of time between the removal of the stimulus and the return of the brain potentials to their prestimulus value. For recording the brain potentials standard amplifiers were used to drive a Boehm 2-A ink-writing undulator which responded up to 30~. Perseveration time thus measured was found to be 4.6 sec. for standard words having a known meaning; 4.8 sec. for nonsense words having no known meaning; and 3.1 sec. for a light field of slightly higher intensity than that reflected from the word cards. "On the basis of the data it is tempting to say that 'meaning' has a physiological basis detectable by the brain potential technique, since the meaningful and nonsense (but still meaningful) words were associated with longer perseveration times than light."—H. W. Karn (Pittsburgh).

72. Wagner, R., & Richter, W. Zur Physiologie intracentraler Hemmungen. I. Über die Bedeutung des Zeitintervalls zwischen erregenden und hemmenden Reizen. II. Über Hemmungsverspätung und Hemmungsverlangsamung. (The physiology of intracentral inhibition. I. The meaning of the time interval between exciting and inhibiting stimuli. II. Concerning delayed and retarded inhibition.) *Z. Biol.*, 1936, 97, 533-547.—P. L. Krieger (Leipzig/Munich).

73. Wollenschläger, I. Alternans- und Periodenbildungen bei künstlicher Reizung des Rückenmarksfrosches und andere Reflexphänomene. (Alternating and periodic patterns on artificial stimulation of the spinal frog and other reflex phe-

nomena.) *Pflüg. Arch. ges. Physiol.*, 1937, 239, 247-264.—On low-frequency rhythmic electrical stimulation of the frog's spinal cord either the successive reflex movements decrease in size or they show alternating or periodic responses. These phenomena are also seen in the rubbing and croaking reflexes. On faradic stimulation the preparation responds with its own rhythm, which is different from but dependent on the stimulation frequency. Longer faradic stimulation results in a tonic condition of the musculature.—M. A. Rubin (Worcester State Hospital).

[See also abstracts 77, 201, 203, 224, 321, 355.]

RECEPTIVE AND PERCEPTUAL PROCESSES

74. Bak, M. "Kalt-Test"-Untersuchungen an Schwangeren, Gebärenden und Wöchnerinnen. ("Cold-test" researches on pregnant women, women in labor, and women in childbed.) *Mschr. Geburtsh. Gynäk.*, 1937, 105, 24-29.—P. L. Krieger (Leipzig/Munich).

75. Bockoven, S., & Wilcox, B. Significance of retinal fatigue in the study of general and nervous diseases. *Arch. Ophthalmol., Chicago*, 1937, 17, 1024-1030.—Observers fixated monocularly a black dot on a square of Heidelberg paper placed on a green background until a wave of darkness or of mottling passed over the paper. The interval was taken as measuring the fatigue time of the retina. Eyes fatigued most quickly for red (average time less than 5 seconds), next for yellow (8+ sec.), then for blue, for white, and least quickly for green (c. 10 sec.). Hyperopes fatigued more quickly than myopes. Psychoneurotics fatigued more quickly than normals, as did also cases of tuberculosis, of malnutrition, and of common infections. Hypertension appeared to lessen retinal fatigue, arteriosclerosis to increase it.—M. R. Stoll (Mass. Eye & Ear Infirmary).

76. Bridgman, C. S. Absolute brightness thresholds. *Psychol. Bull.*, 1937, 34, 517-518.—Abstract.—R. H. Brown (Clark).

77. Bröns, J. Physiological irradiation, or propagation, as a cause of the negative after-images. *Acta Ophthalmol., Kbh.*, 1937, 15, 137-150.—P. L. Krieger (Leipzig/Munich).

78. Buchholz, F. K. Untersuchung über Ermüdung des Sehens an Gesunden und Nervenkranken. (Studies on visual fatigue in normal persons and neurological patients.) *Dtsch. Z. Nervenheilk.*, 1937, 144, 141.—Buchholz describes a successful technique for measuring sensitivity to light over a considerable period, the subject being in darkness. Experiments lasting more than half an hour, with readings at intervals of one minute, proved the most favorable. Normally variations in sensitivity are slight (about double the deepest wave). Physical fatigue increases them only slightly. Among 30 neurological patients some showed a much greater variation in sensitivity to light, rising to 40 times the lowest level. This procedure does not succeed in localizing the fatigue.—P. L. Krieger (Leipzig/Munich).

79. Canac, F. *Etude de bruits très faibles.* (A study of very faint noises.) *Rev. Acoust.*, 1936, 5, 81-99.—The author describes various fundamental properties of the ear and endeavors to determine the stages in magnitude of sound and to deduce from this gradation certain methods of detecting and measuring very faint noises. First he studied experimentally the threshold sensitivity of the ear. Then he classified and measured very faint noises and sounds, and finally determined errors due to secondary sounds.—M. H. Piéron (Sorbonne).
80. Carleton, E. H., & Madigan, L. F. *Relationships between aniseikonia and ametropia.* *Arch. Ophthalmol.*, Chicago, 1937, 18, 237-247.—Of 500 cases corrected for aniseikonia, 283 reported definite relief from symptoms. Of these, 27% were emmetropic and had a refractive error of less than 1 D., and 31% showed a difference in the two eyes of less than 0.25 D. In cases of anisometropia in principal meridians, 74% showed aniseikonia in the direction to be expected from correction of the anisometropia; in 15% the size difference was in the opposite direction; in 11% either anisometropia or aniseikonia was present without the other. It is evident that aniseikonia may occur independently of refractive error and that its amount cannot be predicted from consideration of the ametropia. In several cases prisms were successfully discarded when the aniseikonic correction was worn. Five cases are reported in detail; in these relief was obtained from severe symptoms of many years' duration.—M. R. Stoll (Mass. Eye & Ear Infirmary).
81. Conway, C. B. *The hearing abilities of children in Toronto public schools.* *Bull. Dep. educ. Res., Ontario Coll. Educ.*, 1937, No. 9. Pp. 132.—1000 representative Toronto school children from grades V to VIII were tested for hearing loss for frequencies from 63 to 12,000 cycles per second with an audiometer. 10.6% showed an average hearing loss of 10 or more sensation units. 8% were hard of hearing in one ear, 2.7% in both ears. The maximum hearing loss was 60 decibels. The hard of hearing were classified as follows: uniform deafening, 55%; greater losses for high tones, 40% (two-thirds of these were boys); "low-tone" or irregular, 5%. Mean average hearing losses greater than 20 decibels caused school retardation of 10 to 15%. In addition to the audiometric survey, a group test of hearing is described which was effective in selecting those with severe loss. There are chapters on: the importance of hearing, the mechanism of hearing, the sensitivity of hearing, factors influencing hearing, and a bibliography.—F. G. Allen (Brown).
82. Crozier, W. J., Wolf, E., & Zerrahn-Wolf, G. *Specific constants for visual excitation.* *Proc. nat. Acad. Sci., Wash.*, 1937, 23, 516-520.—Mean critical illuminations (I_m) for response to flicker were measured as a function of flicker frequency (F) for a number of teleost species. The resultant data, when plotted upon a probability grid in which $100 F/F_{max}$ is the ordinate and $\log I_m$ is the abscissa, provide facts which argue for "the independent hereditary determination of properties respectively associated with rods and with cones, and for the independence of σ , τ' [a measure of relative excitability], and F_{max} ." It is indicated that the constitutional invariants involved "may be subject to comparatively simple rules of inheritance, and thus that specific constants derived from a probability conception of the basis for behavioral performance may be organically determined. . . . A factual basis is thus provided for theoretical objection to the not uncommon practice of averaging data from different individuals not known to be genetically alike with reference to the property being measured."—F. S. Keller (Colgate).
83. Cummings, S. B., Jr., & Wedell, C. H. *Adaptation to vibratory stimuli.* *Psychol. Bull.*, 1937, 34, 510-521.—Abstract.—R. H. Brown (Clark).
84. David, G. *Sinnesphysiologische Untersuchungen an Schwangeren und Wöchnerinnen, zugleich ein konstitutionsmedizinischer Beitrag zur Frage der Dynamik von Konstitution und Rasse in der Klinik.* (Sensory-physiological studies on pregnant and parturient women, with a constitutional-medical contribution to the problem of the dynamics of constitution and race in the clinic.) Berlin: Pfau, 1937. Pp. 25.—R. R. Willoughby (Brown).
85. Doesschate, G. ten, & Fischer, F. P. *Über Perspektive.* (Perspective.) *Arch. Augenheilk.*, 1937, 110, 397-404.—Point and angle have no spatial value. At least two surfaces, and thus space and the three dimensions, are necessary to produce a real and clear feeling of perspective.—P. L. Krieger (Leipzig/Munich).
86. Ford, A. *Perceptive errors in time judgments of behavior.* *Psychol. Bull.*, 1937, 34, 552.—Abstract.—R. H. Brown (Clark).
87. Fowler, E. P. *The prognosis of moderate deafness in youth: variations with disease, management and treatment.* *N. Y. St. J. Med.*, 1936, 36, 607 ff.—A study of thousands of audiograms over a period of years shows that, while clinical treatment and management are often not satisfactory, much can be done to prevent deafness in children.—(*Child Developm. Abstr.* XI: 2217).
88. Geffken, W., & Bayer, H. *Hörprüfung und Hörverbesserung.* (Testing and improvement of hearing.) *Z. Hals- u. Ohrenheilk.*, 1937, 41, 335.—P. L. Krieger (Leipzig/Munich).
89. Gibson, E. J. *Sensory irradiation with voluntary responses.* *Psychol. Bull.*, 1937, 34, 511-512.—Abstract.—R. H. Brown (Clark).
90. Graham, C. H., Brown, R. H., & Smith, J. R. *Brightness discrimination for varying durations of the just discriminable increment.* *Psychol. Rec.*, 1937, 18, 229-233.—While Hecht's equation for brightness discrimination accounts adequately for results obtained when ΔI is of constant duration, the experiment carried out by the authors indicates that when the duration of ΔI is varied the constants of the equation assume different values.—P. S. de Q. Cabot (Simmons).

91. Groethuysen, B. De quelques aspects du temps. Notes pour une phénoménologie du récit. (On some aspects of time. Notes for a phenomenology of report.) *Rech. phil.*, 1935-1936, 5, 139-195.—On the basis of the analysis of introspections, the author concludes that the time of life has multiple, irreconcilable aspects, and that each of its modalities can be conceived as the negation of another. Time is, then, essentially dialectic; it is a movement, or rather continual movements. In spite of this dialectic, time as a unity is only a fiction of the metaphysicians.—G. Goldman (Sorbonne).
92. Heberdey, R. F. Neue Untersuchungen über den Farbensinn niederer Krebse. (New studies on the color sense of the lower crustaceans.) *Zool. Anz.*, 1936, 9, Suppl. Bd., 118-125.—Comparison between *Diaptomus* and *Daphnia* shows no differences in the color sense of the two forms. At least three color qualities—blue, green and yellow—are distinguished, while red (below 650 mμ) is not perceived. The degree of differentiation of the light-perceiving organs appears to be unimportant for the presence and capacity of color perception.—P. L. Krieger (Leipzig/Munich).
93. Heider, G. M. Phonetic symbolism in the deaf. *Psychol. Bull.*, 1937, 34, 548.—Abstract.—R. H. Brown (Clark).
94. Holway, A. H., & Crozier, W. J. On the law for minimal discrimination of intensities. II. *Proc. nat. Acad. Sci., Wash.*, 1937, 23, 509-515.—“When area of application on the skin (A) is varied and the mechanical pressure P_1 is kept constant by appropriate alteration of weight W_1 , ΔP declines with increase of A (and W); ΔP and $\sigma_{\Delta P}$ are nevertheless in direct proportion. The latter relationship cannot be due to ‘experimental errors,’ but must be understood as resulting primarily from the organic variability of sensory discrimination. Other evidence is consistent with this view.”—F. S. Keller (Colgate).
95. Jenkins, W. L. Thermal adaptation in relation to the dimensions of the stimulus. *Psychol. Bull.*, 1937, 34, 516-517.—Abstract.—R. H. Brown (Clark).
96. Jonnard, R., Faillie, R., & Vial, H. Mesure de l'acuité visuelle en fonction de quelques contrastes en lumière colorée. (Measure of visual acuity as a function of color contrasts.) *Travail hum.*, 1937, 5, 306-316.—The broken circle as a test object. Readings in terms of necessary contrasts between circle and background. There was greater visibility with light objects on dark ground, and this effect was accentuated under yellow light. Distracting visual stimuli reduced efficiency considerably, but yellow is not as bad as white light. Short wave length in general has a more unfavorable effect when operating as a distraction.—H. E. Burt (Ohio State).
97. Kahmann, H. Zum fovealen Sehen der Wirbeltiere. (Foveal vision in the vertebrates.) *S. B. Ges. naturf. Fr. Berl.*, 1935, 3, 290; 361.—P. L. Krieger (Leipzig/Munich).
98. Katz, D., & Stephenson, W. Experiments on elasticity. *Brit. J. Psychol.*, 1937, 28, 190-194.—The impression of weight given by a pulled elastic or spring was found to be considerably less than the actual weight required to give that pull. It required a spring balance to convince most subjects that they had equated a pull with a lifted weight of the order of 60% of the pull. The difference between the effects of a pull and a lift points to phenomenological differences in the impressions of weight and elasticity.—M. D. Vernon (Cambridge, England).
99. Kelley, N. H. A comparative study of the response of normal and pathological ears to speech sounds. *J. exp. Psychol.*, 1937, 21, 342-352.—Speech sounds presented to the subjects were articulated by the experimenter and transmitted by a speech amplification system. The intensity level of the sounds presented was controlled by means of attenuators, calibrated directly in decibels. In general, the preferred intensity level and the intensity level above threshold at which continuous discourse was judged too loud were lower in the pathological than in the normal ear. The greater the hearing loss the smaller these values were. The intelligibility response in the case of the pathological ear was similar to that of the normal ear. In the recognition of vowel sounds the normal were more efficient than the pathological ears; in the recognition of consonant sounds the normal and the pathological ears were approximately equal.—H. W. Karn (Pittsburgh).
100. Knipp, F. Die Sinnwelt der Schmerzen. (The sense world of pains.) Frankfurt a. M.: Klostermann, 1937. Pp. 137. RM. 5.50.—R. R. Willoughby (Brown).
101. Kovarsky, V. [The early detection of daltonian patients in schools.] *Rev. med.-soc. Enfance*, 1936, 4, 166.—Kovarsky divides daltonism (color blindness) into (1) absolute, in which the subject cannot distinguish red from green or (more rarely) blue from yellow, (2) relative, in which the patient can with difficulty distinguish red from green or blue from yellow, and (3) total, in which there is no vision for color. In examining 135 boys from 11 to 12 years of age with charts supplied by Pech, V. Villard, and Viallefort of the University of Montpellier, he found 37% daltonians (17% absolute and 20% relative) and 40.7% who had some slight difficulty in distinguishing colors. He found also 4.4% totally color blind. He thinks that the reason his figures are so high in comparison with others is that his subjects were younger and had not yet learned of their disability and of how to conceal it. He thinks such tests should be made in all elementary schools in order to keep color-blind persons out of professions unfitted to them.—(Courtesy *Child Developm. Abstr.*)
102. Lasarev, P. P., & Bulanova, Z. V. [Changes in peripheral visual adaptation in children during the day.] *C. R. Acad. Sci. U.R.S.S.*, 1936, 4, 7-8.—R. R. Willoughby (Brown).

103. Lawlor, G. W. Effect of changes in bodily set on accuracy of proprioceptive localization. *Arch. Psychol.*, N. Y., 1937, No. 213. Pp. 48.—The problem was concerned with the value of overt bodily sets in proprioceptive localization, the effect of changes in posture and movement on accuracy of localization, and the nature of cues used in localizing. 20 subjects with eyes closed traced the inner side of a metal right angle and attempted to put the pencil point back on the starting point. The results showed that the accuracy of proprioceptive localization is decreased as a greater portion of the body is disturbed. Although localization may be accomplished without attention, visual imagery, positional kinesthetic imagery, and movement kinesthetic imagery are sometimes reported. There is a greater tendency to use visual or movement imagery if the body is moved. It is suggested that proprioceptive localization functions by means of a local-sign pattern.—E. M. Achilles (New York City).
104. Le Grand, Y. Sur le rythme apparent du papillotement. (On the apparent rhythm of flickering.) *C. R. Acad. Sci., Paris*, 1937, 204, 1590.—The author describes some phenomena which are produced below the flicker threshold. The more the source is observed peripherally, the more the apparent rhythm of flickering seems to be below the real frequency. When the eye is immobile, there can be fusion without flickering in less than 1 minute; the least movement of the eye always causes the flickering to reappear. The slowing of rhythm is accompanied by an apparent increase of the brilliance of the source, the color of which turns to violet. Fusion in peripheral vision may be of nervous and not photochemical origin.—G. Goldman (Sorbonne).
105. Le Grand, Y. Energie lumineuse et vision. (Light energy and vision.) *Rev. gén. Sci. pur. appl.*, 1937, 48, 233-236.—The author reviews the essential properties of the human eye as a receptor of light energy. The great absolute sensitivity of the eye is exceeded only by certain instruments called photon recorders. The spectral sensitivity of the eye is selective; this has advantages in regard to visual acuity, which otherwise would suffer from chromatic aberration due to variation of the refraction index of the different ocular media. The author discusses briefly the methods used for the transformation and multiplication of light energy. He presents the problem of the transformation of light energy into sound energy; by means of photo-electric cells visual images would be replaced by auditory frequencies, thus making it possible for individuals blind from birth to learn to see with their ears.—G. Goldman (Sorbonne).
106. Lehmann, G. Die Praxis des Hörunterrichts in der Taubstummenanstalt. (The practice of auditory instruction in the institution for deaf and dumb.) *Hals. Nas. Ohrenarzt*, 1937, 28, Part I, No. 2, 124-129.—The author reports the methods of Bárzi in the Budapest institution for deaf and dumb. In the second grade, oral speech (the completion of which requires about four years) results from practice exclusively by means of words and sentences. The choice of practice groups occurs with regard to the phonetic, rhythmic, and conceptual relationship between the variety of wholes. The goal is sureness in carrying on a conversation orally.—P. L. Krieger (Leipzig/Munich).
107. Mann, I. C. Developmental abnormalities of the eye. New York: Macmillan, 1937. Pp. 455. \$15.00.—R. R. Willoughby (Brown).
108. Mead, L. C. The curve of intensity discrimination in the cat as a function of illumination. *Psychol. Bull.*, 1937, 34, 517.—Abstract.—R. H. Brown (Clark).
109. Menner, E. Der Pecten im Auge der Vögel. (The pecten in birds' eyes.) *Zool. Anz.*, 1935, 8, Suppl. Bd., 244-248.—The most important function of the pecten is to make the bird's eye especially sensitive to movements. Thus a daylight bird of prey is actually fascinated by a scurrying mouse, which if motionless he would not have perceived. In animals which hunt at night, shading of large portions of the retina would be disadvantageous; hence in them the pecten and its shadow tend to disappear.—P. L. Krieger (Leipzig/Munich).
110. Minkowski, E. Le problème du temps vécu. (The problem of experienced time.) *Rech. phil.*, 1935-1936, 5, 65-99.—The author discusses the idea of "no longer existing," the flight of time, the different ways of experiencing time (past, present and future), and the notion of the present as the "present instant." He concludes by considering the ability to stop a mental process by an effort of the attention in order to examine the experienced present; the experience is thus probably limited, but one realizes thereby a manner of being which is peculiar to the human being in relation to "becoming."—G. Goldman (Sorbonne).
111. Morgan, C. T. The visual discrimination of real movement in the cat. *Psychol. Bull.*, 1937, 34, 519.—Abstract.—R. H. Brown (Clark).
112. Nager, F. R. Die Seelennot der Schwerhörigen. (The psychic needs of the hard of hearing.) Basel, Aescherstr. 16: Bund Schweizer Schwerhörigenvereine, 1936.—R. R. Willoughby (Brown).
113. Nindel, E. Über Hyperventilation und sinnesphysiologische Versuche. (Hyperventilation and investigations in sensory physiology.) Berlin: Neuland-Druck, 1937. Pp. 27.—R. R. Willoughby (Brown).
114. Okamoto, T. Hat die Hypophysenextirpation bei der Kröte auf die Verschiebung der Netzhauptpigmente irgendeinen Einfluss? (Has hypophysis extirpation in the toad any influence on the alteration of the retinal pigment?) *Z. ges. exp. Med.*, 1937, 101, 155-165.—P. L. Krieger (Leipzig/Munich).
115. Rabkin, E. B. Polychromatic plates for color sense examination. Kharkov: State Medical Publishing Board, 1936. Pp. 40 + 20 colored plates. 30 rub.—This series of tests for color defect issues from the laboratory for color vision of the

Hirshman Memorial Ukrainian Central Ophthalmic Institute, of which Rabkin is the director. The tests are composed of colored figures on colored backgrounds such as are found in the Stilling and Ishihara tests. A number of the plates contain also "hidden" figures, which are visible only to the dichromate. Triangles, circles and squares appear on some plates instead of figures, and so can be used for testing children and illiterates. A diagnosis can be made from the tables of dichromasy in general, and of protanopia, deuteranopia and tritanopia in particular. The author claims, too, from the tests that "the simpler forms of anomalous trichromasy" can also be detected. Plates are added to detect simulation. The series itself has been tested out in the Experimental Ophthalmic Clinic of the Institute of Experimental Medicine at Kharkov, and has proved successful. The book contains detailed and clear instructions in both Russian and English.—(Courtesy *Brit. J. Psychol.*)

116. Ritter, E. Untersuchungen über den chemischen Sinn beim schwarzen Kolbenwasserkäfer *Hydrous piceus*. (Investigations on chemical sensitivity in the black water beetle.) *Z. vergl. Physiol.*, 1936, 23, 543-570.—Parallel histological and behavior studies were made on chemoreceptivity in this vegetarian water beetle. Either originally or through training (i.e., repeated combination of food and a given chemical) the beetles responded differentially to scatol, cumarin, and other substances released in their swimming path. Orientation tests following extirpation of various appendages gave no evidence that the antennae contain chemoreceptors; but olfactory and gustatory sensitivity were established for the apical ends of the maxillary palps. In tests above water all thresholds were found higher, but even under submarine conditions olfactory sensitivity is poor. Incidental tactual stimuli are important; chemical sensitivity becomes involved when the encountered substance (e.g., H_2S -saturated meat in tests) is close to the mouth. Differential responses were given to salt, HCl, quinine and sugar, originally or after many trials in which they accompanied food. Gustatory thresholds differ for various appendages in the mouth region. Beetles lacking buccal appendages continued to respond to chemical stimuli, hence other bodily localities must contain chemoreceptors. Various types of chemoreceptive cells are described, and their distributions are stated.—T. C. Schneirla (New York University).

117. Roelofs, C. O. Binokulare und monokulare Lokalisation. (Binocular and monocular localization.) *Arch. Augenheilk.*, 1937, 110, 330-356.—P. L. Krieger (Leipzig/Munich).

118. Sato, K. [The oculocentric illusion.] *Jap. J. exper. Psychol.*, 1937, 4, 33-34.—"When one can see an object well, he supposes that he is also seen well by the object, or vice versa. In those cases our presence becomes concentrated, so to speak, in the region of the eyes, and therefore I call this phenomenon the 'oculocentric illusion.'"—R. Kuroda (Keijo).

119. Schlittler, E. Über Hochfrequenz-Schallwellenbestrahlung und einige weitere Behandlungsmethoden der Schwerhörigkeit. (Radiation with high frequency sound waves and some further methods of treating impairment of hearing.) Basel, Aescherstr. 16: Bund Schweizer. Schwerhörigen-Vereine, 1933.—R. R. Willoughby (Brown).

120. Skolnick, A. The upper limit of cutaneous sensitivity to frequency of vibration in the white rat. *Psychol. Bull.*, 1937, 34, 521.—Abstract.—R. H. Brown (Clark).

121. Smith, K. U. Visually controlled responses under conditions of stimulation associated with apparent movement in the cat. *Psychol. Bull.*, 1937, 34, 537-538.—Abstract.—R. H. Brown (Clark).

122. Sommer, W. Zerfall optischer Gestalten. (The decay of optical configurations.) München: Beck, 1937. Pp. 86. (*Neue psychol. Stud.*, 13, H. 3.) RM. 4.—R. R. Willoughby (Brown).

123. Spaeth, E. B. Light adaptation at the macula. An example of its industrial importance. *Arch. Ophthal.*, Chicago, 1937, 18, 248-254.—An investigation was conducted to determine the time during which a fireman was likely to be incapable of correctly recognizing railroad signals after working at the firebox. Observers were firemen whose fundi, fields, acuity and dark adaptation were normal. Six series of experiments were run in which observers were exposed to light intensity which at the distance of observation equalled the light intensity of the firebox at the working distance. Series A consisted of 5 exposures of 3 seconds each with a 3-second interval; B, C, D, and E, of unbroken exposures of 5, 10, 15, and 20 seconds respectively; F, of 10 exposures of 3 seconds each with 3-second intervals between. After these exposures the subject called the color of a signal light designed to simulate actual working conditions. Observers showing consistently high reaction times were excused; average reaction times for the remainder (about 10 in each series) were: A, 26 sec.; B, 24; C, 25; D, 38; E, 48; F, 56. In the first 5 series, relative delay in calling the signal was not proportional to the increased duration of the fatiguing stimulus, but comparison of the F and A series shows more than double the delay when the duration of the interrupted series was doubled. As compared with a yellow-white light, red showed an increase of 10% in time required, green of 20%, and blue of 100%. Lights were noted extra-macularly, but disappeared in the macular scotoma when an attempt was made to recognize the color. Errors in calling the lights increased after longer exposures.—M. R. Stoll (Mass. Eye & Ear Infirmary).

124. Süffert, F. Neue Arbeit an den Fragen der visuellen Anpassung. (New studies on the problems of visual adaptation.) *Zool. Anz.*, 1935, 8, Suppl. Bd., 248-295.—There can be no doubt of the fact of visual adaptation. Although we may be unable to demonstrate directly an organ having this function and utility, nevertheless we must assume that some apparatus for this purpose exists, because we can see the reason for it. Then we begin to experiment

in order to prove the assumption.—P. L. Krieger (Leipzig/Munich).

125. Tastevin, J. En partant de l'expérience d'Aristote les déplacements artificiels des parties du corps ne sont pas suivis par le sentiment de ces parties ni par les sensations qu'on peut y produire. (Starting from Aristotle's experiment the artificial displacements of parts of the body are not followed by feeling in these parts or by the sensations which can be produced there.) *Encéphale*, 1937, 32, 57-84; 140-158.—If a small ball is placed between the ends of two crossed fingers, the sense of touch causes two balls to be perceived: this is Aristotle's experiment. The author considers: (1) the inversion of the sensations produced on the crossed fingers, (2) the perceptions of the crossed fingers while in natural position, (3) the errors of tactile relief produced by the crossed fingers, (4) the false localizations obtained by artificial displacements of different parts of the body, (5) the problem of outward perception and the theory of localizing judgments.—M. H. Piéron (Sorbonne).

126. Velhagen, K. Heterophorie unter den Bedingungen des Höhenfluges. (Heterophoria under the condition of altitude flying.) *Luftfahrtmedizin*, 1937, 1, 344-350.—P. L. Krieger (Leipzig/Munich).

127. Vernon, M. D. The perception of distance. *Brit. J. Psychol.*, 1937, 28, 1-11; 115-149.—It was attempted to make the experimental situation resemble as nearly as possible the conditions of normal distance perception, thus allowing primary and immediate perception and estimation of distance as well as secondary judgments relating to distance; but it was difficult to maintain these conditions while carrying out a closer study of the factors mediating distance perception. It was found that distances could be compared and equalized by means of sensations of disparity under certain specialized conditions. It was concluded that the most essential feature was the visual perception of a three-dimensional configurational structure with which were closely correlated the perceived perspective form of the general setting and surroundings (and the interrelationships of its constituent parts), and the graduated series of impressions of disparity, size, clearness, "insistency" and brightness.—M. D. Vernon (Cambridge, England).

128. Verrier, M. L. Nouvelles recherches sur la rétine des vertébrés. (Recent research on the retina of vertebrates.) *Bull. biol.*, 1937, 71, 238-266.—The author furnishes new evidence against the theory of duality of vision. A comparative study of different types of eyes in diurnal and nocturnal animals (fish: *Glarias dussumieri* Dum., *Ophiocephalus* sp.; reptiles: *Uromastix acanthinurus* L., *Agama bibroni* Dum., *Lygosoma* sp.; birds: *Uria troille* L., *Egretta garzetta* L., *Athene noctua* Scop., *Tyto alba* L., *Asio otus* L., *Stryx aluco* L.) did not bring out any significant differences in the total mass of external segments of the visual cells, in the pres-

ence of the visual purple, or in the fovea.—G. Goldman (Sorbonne).

129. Verrier, M. L., & Pannier, M. R. Recherches sur les constituants chimiques de la rétine, leurs rapports avec le pourpre rétinien et la théorie de la dualité de la vision. (Studies on the chemical constituents of the retina, their connection with retinal purple, and the theory of duality in vision.) *Bull. Soc. Ophtal. Paris*, 1936. Pp. 11.—A qualitative study of the chemical constituents of illuminated and darkened retinæ of individuals within the same species and of different species (cephalopods, selacians, teleosts, reptiles, birds, and mammals) showed a marked uniformity of the chemical substances. With the exception of the quantitative and qualitative variations of melanin substances, the writers found only quantitative fluctuations between results in the retinæ at low illumination and in retinæ in very highly illuminated environments. This experimental fact does not agree with the theory of the existence of two distinct types of retinæ as indicated by the duality theory of vision.—G. Goldman (Sorbonne).

130. Volkmann, J. The natural number of categories in absolute judgment. *Psychol. Bull.*, 1937, 34, 543-544.—Abstract.—R. H. Brown (Clark).

131. Wagner, R., & Zintl, H. Versuche zur Selektiven Verstärkung bestimmter Gebiete des Tonbereiches mit Hilfe von polyphonen Membranen. (Experiments on the selective strengthening of definite regions of the tone range with the help of polyphonic membranes.) *Z. Biol.*, 1937, 98, 11-25.—P. L. Krieger (Leipzig/Munich).

132. Warkentin, J. An experimental study of the ontogeny of vision in the rabbit. *Psychol. Bull.*, 1937, 34, 542-543.—R. H. Brown (Clark).

133. Warkentin, J., & Smith, K. U. The development of visual acuity in the cat. *J. genet. Psychol.*, 1937, 50, 371-399.—This study presents results concerning the relation between visual acuity and the development of certain visually determined reactions in the cat. An apparatus was devised which could be used to present a rotating visual field to the kitten when the latter was placed on a stationary platform in the center of a rotating cylinder. By means of this apparatus visual acuity can be determined in terms of the visual angle subtended by the smallest stripes to which the animal responds. Quantitative data are presented on the following questions: (1) At what age in the cat can visually controlled oculocephalogyric responses be elicited? (2) What is the visual acuity of the cat, measured by means of the oculocephalogyric response, at the time of the onset of these reactions? (3) Does the visual acuity of the cat improve gradually in time from the data of the onset of visually controlled behavior? (4) What relation exists between opening of the eyes and the development of visual acuity in the cat? (5) What relation exists between visual acuity and the date of appearance of visually controlled placing responses of the forelimbs of the cat? (6) How extended is the period

of the development of these phases of visually determined behavior in the young kitten? Analysis and consideration of the quantitative data lead the author to the conclusion that a high degree of visual acuity precedes the formation of functional associations involving the striate and motor cortex.—*E. Heidbreder* (Wellesley).

134. Wertheimer, J. Hysterogenese der Achsenmyopie. (Hysterogenesis of axial myopia.) *Schweiz. med. Wschr.*, 1937, 67, 878.—*P. L. Krieger* (Leipzig/Munich).

135. Wever, E. G., & Bray, C. W. The effects of sodium chloride upon the electrical responses of the cochlea. *Psychol. Bull.*, 1937, 34, 519-520.—Abstract.—*R. H. Brown* (Clark).

136. Wigger, H. Versuche zur Kausanalyse der retinomotorischen Erscheinungen. (Analysis of retinomotor phenomena.) *Pflüg. Arch. ges. Physiol.*, 1937, 239, 215-246.—The movement of retinal pigment and cones is studied as a function of light and dark, electrical and thermal stimulation in the goldfish, perch and frog. The effects of acidity and alkalinity are also investigated. It is concluded that movement of the retinal pigment and cones is governed primarily by chemical processes initiated by exposing the retina to light and darkness, and secondarily by the influence of the optic nerve.—*M. A. Rubin* (Worcester State Hospital).

137. Wohlfahrt, T. Ein neuer Versuch über das Tonunterscheidungsvermögen der Fische. (A new experiment on the ability of fish to distinguish tones.) *Zool. Anz.*, 1936, 9, Suppl. Bd.—After training two blinded *Phoxinus laevis* L. with a prolonged sound for feeding, countertraining was begun with a warning signal (a slow trill), a third tone for the first fish and the whole tone for the second. The "third tone fish" at first did poorly, while the other was almost uniformly successful after 4 days. To determine whether fishes can be trained to respond to rhythm, the "third tone fish" was retrained to the same sound (g^1), the sustained sound being for food, the interrupted for warning. Differences in sound were less important than interruption. The first feeding note, when repeated, caused a spontaneous flight reaction. Only after 10 days was the sustained distinguished from the interrupted sound. The same was true for the staccato repetition of the feeding and warning sounds with the "whole tone fish." The feeding sound had a stronger associative value. The fishes could also plainly distinguish the half-tone difference (a frequency difference of about 6%). The third tone appears to be the limit of sound differentiation. The labyrinth is apparently more important for sound differentiation than tactile sensations from the skin.—*P. L. Krieger* (Leipzig/Munich).

138. Wolter, H. Beiträge zum Lichtsinn von *Carcinus maenas*. (A contribution to the light sensitivity of *C. maenas*.) *Zool. Jb.*, 1936, 56, 581.—*C. maenas* is not negatively photostatic until dark-adapted. Then it begins to move about in circles and spirals and is disoriented. Movable eye-stems compensate for changes in the direction of

illumination up to 17° , while the entire body turns around its vertical axis when the change is greater. The animal uses only one of two available light sources for orientation, the choice being mostly independent of intensity differences. After passive rotation on a disk the animal displays nystagmus of the eye-stems, but not always at the same rotation angle. Orientation in a glass bowl surrounded by a striped cylinder is made by using the stripes. Laterally displayed light sources do not influence its behavior. In the dark the eye-stems are pulled in, and in the light they project. This reaction depends on the intensity and the duration of the illumination (Bunsen-Roscoe law).—*P. L. Krieger* (Leipzig/Munich).

139. Young, P. T. Reversal of auditory localization. *Psychol. Rev.*, 1937, 44, 505-521.—The author summarizes as follows: "A comparison of the experiment of Willey, Inglis and Pearce with that of the writer upon reversed auditory localization, reveals that the two are in excellent agreement so far as the effect of the pseudophone upon purely auditory localization is concerned. The two studies differ in their view of the nature and development of normal sound localization through visual-motor adjustment. A reconsideration of all available evidence leads to the view that the pseudophones produced an artificial separation between two kinds of sound localization, auditory and non-auditory. Both kinds of localization were well developed and integrated at the start of the experiment. Their separation resulted in a disorientation, which tended, however, to become less disturbing and less noticeable under the necessity of increased reliance upon vision."—*A. G. Bills* (Cincinnati).

[See also abstracts 59, 202, 225, 226, 259, 281, 401, 440, 444, 452.]

LEARNING, CONDITIONING, INTELLIGENCE

(incl. Attention, Thought)

140. Achille-Delmas, F. La psychologie du témoignage. (The psychology of testimony.) *Etud. carmélit.*, 1937, 22, 27-54.—The author discusses in turn the psychological, pathological, and experimental data concerned, and gives the many causes which can alter or falsify testimony. He discusses suggestibility in children and the causes of psychological lack of balance; deficiency in attention, fixation, and recall; and faults in observation or in interpretation. He concludes by saying that good testimony should be simple, precise, clear, and interesting.—*M. H. Piéron* (Sorbonne).

141. Biel, W. C. The effect of early inanition upon maze learning in the albino rat. *Psychol. Bull.*, 1937, 34, 557.—Abstract.—*R. H. Brown* (Clark).

142. Briones, I. T. An experimental comparison of two forms of linguistic learning. *Psychol. Rec.*, 1937, 16, 205-214.—Compared with the learning of a series of isolated words the learning of a language was favored when the material resembled actual

speech adjustments. 36 university students of both sexes ranging in age from 17 to 31 acted as subjects. The material included words and phrases from the Iloko language of the Philippines. There was no correlation between college year and learning score. Although the number of men was smaller, the women learned faster and retained more, were superior in memory, and were generally more interested in learning the language than the men. There was no significant correlation between the number of foreign languages studied by the subjects and the ability with which they learned the Iloko language. Age favored the younger subjects.—*P. S. de Q. Cabot* (Simmons).

143. Britt, S. H. The learning-remembering process. A reply to Professor Cason. *Psychol. Rev.*, 1937, 44, 462-470.—The concepts of learning, retention, forgetting, and reproduction as formulated by Cason in this journal, 1937, 44, 54-61, are criticized on ten counts, chief of which are that they reify terms, they make superfluous neurological assumptions, they involve a cause-and-effect explanation when a wholly descriptive definition is adequate, and they artificially split up what is really a temporally continuous process. The author substitutes the following definitions, which are free from the above objections: "Learning is the acquisition by a living organism of a mode of response which is adapted to a motivating problematical situation. . . . Remembering is the retention by the organism of a previously acquired mode of response, and forgetting is the non-retention of it."—*A. G. Bills* (Cincinnati).

144. Brown, W. Punishment does work: a note on a paper by Honzik and Tolman. *J. comp. Psychol.*, 1937, 24, 145-146.—Analysis of previous data shows that punishment does lead to elimination of the punished responses.—*N. L. Munn* (Peabody).

145. Brown, W. Motivation through punishment. *Psychol. Bull.*, 1937, 34, 564.—Abstract.—*R. H. Brown* (Clark).

146. Bunch, M. E., & Hagman, E. P. The influence of electric shocks for errors in rational learning. *J. exp. Psychol.*, 1937, 21, 330-341.—The question of the influence of electric shocks for errors in rational learning was investigated by using Peterson's ten-letter rational learning problem and comparing the efficiency shown under normal non-shock conditions in the mastery of the task with that shown when shocks were administered for errors. When the ten letters were presented in alphabetical order on each trial, the efficiency of learning was considerably increased, according to trials and the various error scores, as a result of administering shocks for errors. When the letters of the problem were presented in a random order on each trial, the influence upon learning of shocks for errors was detrimental, according to four of the six measures of efficiency. These difference scores, however, are small and of doubtful reliability statistically.—*H. W. Karn* (Pittsburgh).

147. Carmichael, L. Learning which modifies an animal's subsequent capacity for learning. *Psychol.*

Bull., 1937, 34, 529.—Abstract.—*R. H. Brown* (Clark).

148. Cooper, J. B. The effect on performance of the introduction and removal of a delay within the maze. *Psychol. Bull.*, 1937, 34, 555.—Abstract.—*R. H. Brown* (Clark).

149. Cowles, J. T. Food-tokens as incentives for learning by chimpanzees. *Psychol. Bull.*, 1937, 34, 542.—Abstract.—*R. H. Brown* (Clark).

150. Crew, F. A. E. A repetition of McDougall's Lamarckian experiment. *J. Genet.*, 1936, 33, 61-101.—Crew's experiment was conducted to check McDougall's conclusions as to Lamarckian transmission of ability of rats to learn to avoid the brightly lit and electrified outlet of a tank. He finds that innate handedness and photophobia factors could affect results enough to pile up consistent success or failure in some rats without true learning. He will continue his search for their genetic bases. Crew is especially aware of the influence of the selective breeding factor in producing quick-learning as against slow-learning rats, and unlike McDougall, Crew has kept full pedigree data for each rat in both experimental and control groups. McDougall's results indicate definitely lowered error scores for the later of his 21 generations; Crew's 18 generations, comprising 1445 experimentals and 1014 controls, of the same (Wistar) origin as McDougall's rats, show no such decrease with the passing of generations. No new quality has been acquired or transmitted. Better achievement in McDougall's group, Crew thinks, is determined by the higher proportion of "quick" as against "slow" rats in the later generations. This trait can be set up genetically. Parent-offspring correlations of .4 can be obtained by assortative mating. McDougall's effects can be accounted for by his lack of adequate controls.—*G. C. Schwesinger* (American Museum of Natural History).

151. Doér, L. R. Spaced practice in a motor skill and the stimulation-maturation hypothesis. *Psychol. Bull.*, 1937, 34, 560-561.—Abstract.—*R. H. Brown* (Clark).

152. Easley, H. The curve of forgetting and the distribution of practice. *J. educ. Psychol.*, 1937, 28, 474-478.—After criticizing briefly the fatigue theory of the effectiveness of distributed practice and the theory based on the Ebbinghaus forgetting curve, the writer offers a theory which explains the benefits of rest pauses during learning as a consequence of the more rapid forgetting of wrong responses than of right responses. The wrong responses are said to be forgotten more rapidly because they occur less frequently and are, therefore, less well learned.—*A. W. Melton* (Missouri).

153. Elliott, M. H. Measurements of learning and of behavior under varying conditions of motivation. *Psychol. Bull.*, 1937, 34, 556-557.—Abstract.—*R. H. Brown* (Clark).

154. Ellson, D. G. Generalization of extinction in a two-segment serial habit. *Psychol. Bull.*, 1937, 34, 513.—Abstract.—*R. H. Brown* (Clark).

155. Fischel, W. *Anwenden erlernten Verhaltensformen bei Affen.* (Application of learned forms of behavior in monkeys.) *Zool. Anz.*, 1936, 9, Suppl. Bd., 135-140.—When a lever, opening only upward or sideways, was left with a nut on it or nearby, the monkeys discovered accidentally both methods of working it. Although these were at first applied only by chance, later manipulation made a distinct impression of a series of acts grasped as a totality. The monkeys understood both the forms of the two possible manipulations and their successful application even after a changed objective. Dogs could not succeed in similar experiments. In the choice of a cherry or a chestnut, the former was put in as the preferred object in 31 out of 35 experiments. The superiority of monkeys over other mammals lies in the primarily successful application of learned behavior.—P. L. Krieger (Leipzig/Munich).
156. Fletcher, F. M., & Nissen, H. W. Reinforcements of "reward-expectancy" in delayed response of young chimpanzees. *Psychol. Bull.*, 1937, 34, 541-542.—Abstract.—R. H. Brown (Clark).
157. Foran, T. G. Retroactive inhibition in relation to age and the nature of the interpolated task. *J. educ. Psychol.*, 1937, 28, 451-460.—The problem of the present investigation was to determine the extent of the interference in the recall of a series of 25 verbs induced by the interpolation of the following activities in the 15-minute interval between the learning and attempted recall of the words: arithmetic computation, arithmetic problem-solving, spelling, memorization of a poem, memorization of a list of 25 nouns, arithmetic computation in combination with spelling. The age of the S's ranged from 8 to 14 years. No attempt was made to hold constant the degree of original learning for the S's of different ages or for the S's of the same age serving in the control and work conditions, and large variations in average amounts of original learning occurred. The memorization of a list of nouns was the only interpolated activity that gave significant and consistent amounts of retroactive inhibition, and in this case there was no relation between retroactive inhibition and the age of the S's. When spelling was interpolated, a fairly high (significant?) amount of retroactive inhibition was obtained with the 8-year S's, the amount decreased for ages 9 and 10, and there were increasing amounts of facilitation at ages 11, 12, and 13.—A. W. Melton (Missouri).
158. Gilhousen, H. C. A preliminary analysis of "anticipatory" action in mazes. *Psychol. Bull.*, 1937, 34, 555-556.—Abstract.—R. H. Brown (Clark).
159. Grether, W. F., & Maslow, A. H. An experimental study of insight in monkeys. *J. comp. Psychol.*, 1937, 24, 127-134.—11 monkeys were tested for delayed reaction by a direct method. Food was placed under one of two cups while these were behind a screen. The screen was then removed and, while the monkey was looking, the empty cup was raised. Upon further exposure of the cups 10 seconds later the monkey lifted one. The problem was regarded as learned when an accuracy of 75% in 100 trials (25 a day) had been attained. During this and more complicated tests of delayed reaction, some monkeys reacted correctly from the first, some made errors and then suddenly improved; and one evidenced irregular improvement. The three types of solution are interpreted as evidence for individual differences in ability to use insight in the present situation. Bibliography.—N. L. Munn (Peabody).
160. Gulliksen, H., & Wolfe, D. L. A rational theory of discrimination learning. *Psychol. Bull.*, 1937, 34, 562.—Abstract.—R. H. Brown (Clark).
161. Guthrie, E. R. Tolman on associative learning. *Psychol. Rev.*, 1937, 44, 525-529.—An answer to Tolman's "The acquisition of string-pulling by rats—conditioned response or sign-Gestalt," this journal, 1937, 44, 195. Guthrie argues that the conditioned-response analysis, which Tolman suggests and dismisses as inadequate, does not do justice to the conditioned-response point of view. He then offers his own analysis of how the rat comes to treat the string as a "sign-Gestalt expectation hypothesis." He suggests that his own description in terms of associative learning predicts the consequent behavior directly without recourse to this intervening variable.—A. G. Bills (Cincinnati).
162. Hachet-Souplet, P. Une méthode expérimentale pour l'étude de la transmission héréditaire des caractères acquis. (An experimental method for the study of hereditary transmission of acquired characteristics.) *Rev. sci., Paris*, 1936, 74, 730-734.—A method of training by means of multiple stimuli.—M. H. Piéron (Sorbonne).
163. Hachet-Souplet, P. Un cas d'auto-dressage chez le chien. (A case of self-training in a dog.) *Rev. sci., Paris*, 1937, 75, 184-187.—A small dog, born with atrophied hindquarters, for several months moved forward by pushing himself on his stomach by movements of his front paws similar to the movements made by oarsmen. Then he acquired a new set of movements: he began to walk on his front paws, his body being held perpendicular to the ground. He could walk in this fashion with surprising rapidity and was able to live in a more nearly normal way.—M. H. Piéron (Sorbonne).
164. Hanawalt, N. J. Direction in recognition. *Psychol. Bull.*, 1937, 34, 533.—Abstract.—R. H. Brown (Clark).
165. Hilgard, E. R. The concept of reinforcement as used in conditioning experiments. *Psychol. Bull.*, 1937, 34, 560.—Abstract.—R. H. Brown (Clark).
166. Hilgard, E. R., & Campbell, A. A. Vincent curves of conditioning. *J. exp. Psychol.*, 1937, 21, 310-319.—Recently, Hunter presented Vincent curves of conditioning based on the acquisition by rats of a simple locomotor habit (*J. exp. Psychol.*, 1936, 19, 121-128). These curves lack the initial positive acceleration and the later negative acceleration reported by most writers, including the authors, who have constructed curves of acquisition of conditioned responses. In the present study the authors recast previously reported data on the acquisition

- of conditioned eyelid responses (*J. exp. Psychol.*, 1936, 19, 227-247) in the form of Vincent curves and conclude that the differences between their results and Hunter's are not real but due merely to differences in the treatment of the data.—H. W. Karn (Pittsburgh).
167. Honzik, C. H. Factors influencing the relative difficulty of maze blinds. *Psychol. Bull.*, 1937, 34, 555.—Abstract.—R. H. Brown (Clark).
168. Hoop, J. H. v. d. Intuition in medical psychology. *Brit. J. med. Psychol.*, 1937, 16, 255-269.—Intuition is described as the process of grasping relations, which lies between instinctive animal intelligence and deductive thinking. Its importance in psychotherapy is indicated.—E. R. Hilgard (Stanford).
169. Hovland, C. I. The generalization of conditioned responses. IV. The effects of varying amounts of reinforcement upon the degree of generalization of conditioned responses. *J. exp. Psychol.*, 1937, 21, 261-276.—Four equated groups of 32 subjects each were given 8, 16, 24, and 48 paired presentations of tone and shock. One half of each group was conditioned to a tone 40 db. above threshold, while the other half was conditioned to one of 86 db., 150 j.n.d.'s removed in intensity. Following reinforcement, test stimuli of both intensities were presented. The responses to the intensity used in conditioning were compared with the generalized responses to the intensity of stimulus not previously presented. An acquisition curve of conditioned galvanic skin response was plotted, based upon the means of equated groups of subjects given varying numbers of reinforcements. This curve shows continuous negative acceleration. The ratios of the generalized responses to the conditioned responses following various numbers of reinforcements were calculated. An initial period of increasing generalization is followed by gradual restriction. The differentiation develops following prolonged training, even when differential reinforcement is not employed. Conditioned responses tend to extinguish more slowly the further the conditioning process has advanced. Generalized responses, however, appear to decline more rapidly during testing the greater the number of reinforcements.—H. W. Karn (Pittsburgh).
170. Hovland, C. I. "Reminiscence" and distribution of practice in serial and paired associate learning. *Psychol. Bull.*, 1937, 34, 530-531.—Abstract.—R. H. Brown (Clark).
171. Humphreys, L. G. The effect of instructions on conditioned discrimination. *Psychol. Bull.*, 1937, 34, 561.—Abstract.—R. H. Brown (Clark).
172. Hunter, W. S. H. A. Carr on the problem of reliability. *Psychol. Rev.*, 1937, 44, 529-532.—A reply to Carr's paper "The search for certainty," this journal, 1937, 44, 274-296, which attacked Hunter's use of the method of measuring reliability in the field of learning by correlating scores on odd and even trials. Hunter denies using the method, and cites critical discussions of it by his students.
- He used, rather, the test-retest correlation method of determining reliability.—A. G. Bills (Cincinnati).
173. Husband, R. W. Intercorrelations among tests of learning and memory. *Psychol. Bull.*, 1937, 34, 564-565.—Abstract.—R. H. Brown (Clark).
174. Klinkowstroem, C. v. Menschenhirn schneller als Maschine. (The human brain is quicker than the machine.) *Volk u. Welt*, 1937, 9, 9; 52.—A report on the memory phenomena shown by F. Braun of Leipzig. Visual memory is as well developed as acoustic. Longer series of numbers are retained according to their sound rhythm, and two-place numbers are immediately raised to the tenth power.—P. L. Krieger (Leipzig/Munich).
175. Kubis, J. F. Factors in the repetition and elimination of error. *Psychol. Bull.*, 1937, 34, 547.—Abstract.—R. H. Brown (Clark).
176. Kuo, Z. Y. Forced movement or insight. *Psychol. Bull.*, 1937, 34, 530.—Abstract.—R. H. Brown (Clark).
177. Kuo, Z. Y. Forced movement or insight? *Univ. Calif. Publ. Psychol.*, 1937, 6, 169-188.—The purpose of the present paper is to check the results of Tolman and Honzik, which were alleged to prove insight in the rat, and to show that such an interpretation has no basis in fact. 280 rats were used with mazes of Tolman's pattern but in one case with narrow walled alleys and in another case with no walls and widened alleys. The author shows that the alleged insight is largely due to position habits (turning left or right), set up during the preliminary training. Rats with normal vision reacted on the basis of visual "familiarity" (frequency).—W. S. Hunter (Brown).
178. Long, L., & Sells, S. B. Atmosphere and contrast effect: directional tendencies in judgment and reasoning. *Psychol. Bull.*, 1937, 34, 525.—Abstract.—R. H. Brown (Clark).
179. Lough, O. M. The effect of functional periodicity on the learning process. *J. genet. Psychol.*, 1937, 50, 307-322.—Learning tests, administered on consecutive school days for a total of 32 days to 65 women students and on 40 days to 31 women students, were used to discover the effect of the menstrual cycle on learning ability. Each subject provided her own control in that each of the four phases of her menstrual cycle was compared with the other three phases. Correlations obtained by these comparisons indicate no differences in learning during the four phases of the cycle. Supplementary data are reported concerning the relation of the factors studied to intelligence as measured by the Henmon-Nelson tests of mental ability, to neurotic tendencies as measured by the Thurstone personality schedule, Clark revision, and to certain mental and physical habits reported from memory.—E. Heider (Wellesley).
180. Maier, N. R. F., & Curtis, Q. F. A further analysis of reasoning in rats. I. The influence of trace-aggregations on problem solving. *J. comp. Psychol.*, 1937, 24, 1-19.—When white rats were

given five successive daily trials on the Maier three-table reasoning test, their three final trials were much lower in accuracy than the two first trials. The decrease in accuracy amounted to 25.6%. Rats with cortical injuries evidenced a reduced accuracy of 42.2% after the first trials. These results indicate that "giving several tests in succession increases the qualitative complexity of a problem." Decreased accuracy after the second daily trial is attributed to the rats' difficulty in choosing between the last position of a food table and its previous positions. It is only after two tables have become associated with food that such "confusion" arises. "The Gestalt theory of memory traces is utilized to explain the nature of this confusion. According to this theory, similar memory traces tend to form aggregates. Repeated testing . . . may reduce the uniqueness of the memories of the tables in only one way. This occurs when a choice between two tables, both of which have been food tables at different times, is presented to the rat. Since on the first tests of the day the choice is between a food and a no-food table, the memory traces at this time are more unique."—*N. L. Munn (Peabody)*.

181. Matthews, H. A. *Intelligence; an explanation of what it is*. Boston: Meador, 1937. Pp. 26. \$0.50.—In this pamphlet intelligence is defined as follows: "Intelligence is the ability to understand things correctly, that is, logically, and to be able to think on logical lines for yourself."—*F. A. Mote, Jr. (Brown)*.

182. McGeoch, G. O., & McGeoch, J. A. *Associative latency as a function of interpolated learning*. *Psychol. Bull.*, 1937, 34, 531.—Abstract.—*R. H. Brown (Clark)*.

183. McGeoch, J. A., & McGeoch, G. O. *Studies in retroactive inhibition: X. The influence of similarity of meaning between lists of paired associates*. *J. exp. Psychol.*, 1937, 21, 320-329.—Lists of paired adjectives were used as original learning material. Interpolated lists of other paired adjectives represented the following relations to the original lists: no specific relation, first members synonymous, second members synonymous, both members synonymous. The influence of the various interpolations are as follows: (1) Each interpolation produces some retroactive inhibition, but the amounts produced by an unrelated list and by one the second members of which are synonyms of the second members in the original list are relatively small. The unrelated lists and the lists with second members synonymous do not differ significantly from each other in amount of decrement produced. (2) Interpolated lists the first members of which are synonyms of the first members of the original list yield larger decrements in retention. These decrements are not significantly altered when the second members are also synonymous. (3) First members of associated pairs are, under the conditions of the experiment, the dominant terms in the production of retroactive inhibition. The results are interpreted as supporting the hypothesis that the phenomena of

retroactive inhibition may be subsumed under the paradigm of reproductive inhibition.—*H. W. Karn (Pittsburgh)*.

184. Porter, J. M., Jr. *The rate of experimental extinction as a function of the interval between successive non-reinforced stimulations*. *Psychol. Bull.*, 1937, 34, 512-513.—Abstract.—*R. H. Brown (Clark)*.

185. Razran, G. H. S. *Configural and colligated conditioning*. *Psychol. Bull.*, 1937, 34, 515-516.—Abstract.—*R. H. Brown (Clark)*.

186. Schmeing, K. *Justiz und Eidetik*. (Justice and eidetics.) *Msschr. KrimBiol.*, 1937, 28, 113.—The author has investigated experimentally the tendency to spiritualistic and occult manifestations, hallucinations, "second sight" and premonitions among the farmers of lower Saxony. In each case a pronounced eidetic ability was found to exist. He points out the difficulty of obtaining objective statements from such persons in court and their susceptibility to mass suggestion.—*P. L. Krieger (Leipzig/Munich)*.

187. Wees, W. R., & Line, W. *The influence of the form of a presentation upon reproduction: the principle of determination*. *Brit. J. Psychol.*, 1937, 28, 167-189.—Children were required to reproduce a connected story, the same with the statements in reversed order, disconnected sentences, an inconsequential succession of statements, and a series of connected facts presented first as isolated statements, second in the form of a connected narrative. It was found that if the perceived relationships within a form were indeterminate, they might be modified in such a way as to render them determinate. But in so far as they were determinate, reproduction conformed to presentation. This could be secured by the presentation of a form in which a direction, acceptable to the child at the beginning, was maintained to the end. This means that each item was perceptible as consequent upon its antecedents and as determinant of its successors. Similarly, a factor of determination introduced into an outline of facts might improve significantly the conformity of the reproductions. Also, an item determined in a manner to facilitate its reproduction in one form may be transposed for use in another form with greater ease than a corresponding undetermined item.—*M. D. Vernon (Cambridge, England)*.

188. Wiley, L. E., & Wiley, A. M. *Studies in the learning function. II. Critical values of the learning curve*. *Psychometrika*, 1937, 2, 107-120.—From Thurstone's theoretical learning curve solutions for the difficulty of the problem and the learning constant of the subject have been developed. The curve is an equilateral hyperbola. Therefore the semi-major axis represents the learning situation in one constant. The vertex of the curve is a point where all of the subjects are equated, since they are all making errors at the rate of one error per trial.—(Courtesy *Psychometrika*).

189. Winslow, C. N., Kantor, R., & Warden, C. J. *Higher order conditioning in cats with the motor*

alimentary conditioning method. *Psychol. Bull.*, 1937, 34, 514.—Abstract.—R. H. Brown (Clark).

190. Witkin, H. A. Maze behavior and maze design. *Psychol. Bull.*, 1937, 34, 531-532.—Abstract.—R. H. Brown (Clark).

191. Wolfe, D. L. Absolute brightness discrimination in the white rat. *J. comp. Psychol.*, 1937, 24, 59-71.—7 rats learned to respond positively to a given brightness presented now with a greater and now with a lesser brightness. Learning was much slower than under the usual conditions where relative brightness may serve as the basis of discrimination. Various control tests indicated that the response was to an absolute brightness rather than to a relative brightness difference. The author concludes that "rats can learn to discriminate on the basis of absolute cues when the conditions of the experiment demand it."—N. L. Munn (Peabody).

192. Wood, E. E. Mind and memory training. London: Pitman, 1937. Pp. viii + 188. 5/- net.—The author presents various practical methods which he has found of use in the course of a long experience of teaching and study in Europe and India, and which he considers will enable a student to remember and to think accurately. All the methods are repeatedly illustrated and turn in the main upon various uses of principles of association.—F. C. Bartlett (Cambridge, England).

193. Youtz, R. E. P. Retention of a potential trial and error response in the rat. *Psychol. Bull.*, 1937, 34, 514-515.—Abstract.—R. H. Brown (Clark).

194. Ziegler, L. H., & Knudson, A. Quantitative analysis of activity after recovery from rickets: an experimental study. *J. comp. Psychol.*, 1937, 24, 119-126.—11 rats from mothers fed a rachitic diet before and after pregnancy and 6 rats which had recovered from rickets were trained on a Carr maze and their time, errors, and retracings compared with those of 14 controls. Comparisons are based upon average curves rather than statistical analysis of scores. The authors conclude, tentatively, that the quality of activity (as measured in terms of maze scores) suffers as a result of the prior rachitic conditions.—N. L. Munn (Peabody).

[See also abstracts 65, 226, 234, 316, 332, 442, 443, 478, 523, 531, 568, 582.]

MOTOR AND GLANDULAR RESPONSES

(incl. Emotion, Sleep)

195. Anderson, E. E. Interrelationship of drives in the male albino rat. I. Intercorrelations of measures of drives. *J. comp. Psychol.*, 1937, 24, 73-118.—The author obtained 22 measures of drive in each of 50 male rats. Scores were derived from tests involving the Columbia obstruction apparatus, activity drums, ordinary mazes, the Dashiell exploratory maze, copulation, reaction to noise, etc. Hunger, thirst, and sex motivations were used. Most of the 190 intercorrelations were positive. There was a mean r of .46 between the Columbia

and the other obstruction tests. Activity tests yielded a mean intercorrelation of .80. Dashiell maze scores, measures from hunger-noise tests, and body weight (in general) did not correlate significantly with other measures of drive. Maze measures correlated positively with other measures. The author says that "drives such as hunger, thirst, sex, and exploration may operate to determine individual differences on tests of the types used, but 'aptitudes,' 'emotional' factors, and probably rather general factors of more or less unknown nature appear to be more important. The traditional 'primary drives' such as hunger, thirst, and sex appear to be inadequate to account for many of the correlations obtained." A factor analysis is to appear. Bibliography.—N. L. Munn (Peabody).

196. Ball, J. Sex activity of castrated male rats increased by estrin administration. *J. comp. Psychol.*, 1937, 24, 135-144.—"The sex activity of 4 out of 6 castrated male rats was increased above the castrate level by daily injections of 50 to 100 R. U. of estrogenic hormone, suggesting, in agreement with Nissen but contrary to Kun's conclusion, that the gonadal hormone does not organize the mating pattern in the adult but merely activates a pattern already present." Bibliography.—N. L. Munn (Peabody).

197. Barmack, J. E. Some psychological and physiological accompaniments of mental work. *Psychol. Bull.*, 1937, 34, 550-551.—Abstract.—R. H. Brown (Clark).

198. Bethe, A. Rhythmik und Periodik, besonders im Hinblick auf die Bewegungen des Herzens und der Meduse. (Rhythmicity and periodicity, especially from a consideration of the movements of the heart and the jellyfish.) *Pflüg. Arch. ges. Physiol.*, 1937, 239, 41-73.—M. A. Rubin (Worcester State Hospital).

199. Bugelski, B. R. The influence of instructions on the pattern of work decrement in ergography. *Psychol. Bull.*, 1937, 34, 549-550.—Abstract.—R. H. Brown (Clark).

200. Chang, H. C., Chia, K. F., Hsü, C. H., & Lim, R. K. S. Reflex secretion of the posterior pituitary elicited through the vagus. *J. Physiol.*, 1937, 90, 87-88P.—Central vagus stimulation causes liberation of acetylcholine from central synapses and a reflex secretion of pituitrin.—M. A. Rubin (Worcester State Hospital).

201. Coomber, H. Movement a clue to brain action. London: Faber & Faber, 1937. Pp. 196. 3/6 net.—The author first discusses the general development of the nervous system in the infant and the correlated growth of controlled movements; then considers brain patterns as determining coordinate movements, and gives many illustrations; next takes certain types of motor activity as symptomatic of particular patterns of neuron agency, and discusses posture as indicative of brain states. Many remarks are directed to the development of normal or satisfactory motor ability. Specimen exercises are described and recommended, and

instances of the ways in which reports of these should be kept are included.—*F. C. Bartlett* (Cambridge, England).

202. Coombs, C. H. Adaptation of the galvanic response to auditory stimuli. *Psychol. Bull.*, 1937, 34, 558.—Abstract.—*R. H. Brown* (Clark).

203. Cooper, E. L. The jaw-winking phenomenon. *Arch. Ophthalm.*, Chicago, 1937, 18, 198-203.—Reports the case of a woman with slight ptosis of the right lid, with no associated abnormality except a retraction of that lid when the jaw was lowered and especially when it was moved to the left. Vigorous chewing movements caused the lid to move rapidly up and down. The history suggests that an aunt had a similar defect. A review of cases previously reported indicates equal incidence among males and females, with left and right affected with about equal frequency but never both together. Ptosis is usually but not invariably present. Partial paralysis of the superior oblique or superior rectus has been noted. The best explanation seems to be that the levator receives less than its normal innervation from the third nerve (hence ptosis), but is also innervated by some fibers from the fifth nucleus which would normally go to muscles of mastication. Other explanations have been advanced: that the lesion is supranuclear and concerned in the inhibitive mechanism of the levator; that the condition is acquired and functional; that it is an atavistic anomaly; and that the movement is a reflex frequently seen in children with blepharospasm.—*M. R. Stoll* (Mass. Eye & Ear Infirmary).

204. Craig, D. R. An investigation of basic skin resistance levels during sleep under differing conditions. *Psychol. Bull.*, 1937, 34, 559.—Abstract.—*R. H. Brown* (Clark).

205. Denning, H., & others. Steigerung körperlicher Arbeit durch künstliche Alkalose. (Increase of physical work through artificial alkalosis.) *Arch. exp. Path. Pharmak.*, 1937, 186, 611.—In certain forms of physical work (prolonged exertion, bicycling for periods between ten minutes and one hour) exhaustion is markedly delayed by a strong temporary alkalosis produced by organic sodium or potassium salts. Observations on water and acid-base relations, respiration, and basal metabolism are given.—*P. L. Krieger* (Leipzig/Munich).

206. Fischel, W., & Hühnerfeld, J. Über den Einfluss von Hämatoporphyrin auf das Verhalten von Tieren. (The influence of hematoporphyrin upon the behavior of animals.) *Z. ges. exp. Med.*, 1937, 101, 425-437.—"Addition of hematoporphyrin to the diet increases the spontaneous activity of guinea pigs by shortening the periods of rest. In choice experiments with rats . . . hematoporphyrin appears to strengthen inner drives and to raise the valence of oats [over sunflower seed]. . . Increased valences disappear sooner, and other, normally weaker valences are strengthened. These results confirm those found in the clinical treatment of melancholia . . . with dosages corresponding in terms of body weight."—*R. R. Willoughby* (Clark).

207. Fitts, P. M. Factors influencing the rate of eating of the white rat. *Psychol. Bull.*, 1937, 34, 539.—Abstract.—*R. H. Brown* (Clark).

208. Foltz, M. An investigation of the rate and amount of thirst motivated activity in the cat. *Psychol. Bull.*, 1937, 34, 540.—Abstract.—*R. H. Brown* (Clark).

209. Fryer, D. Conscious activity in co-ordination of repetitive mental work and rhythmic timing. *Brit. J. Psychol.*, 1937, 28, 150-166.—While awareness of rate of objective rhythmic timing is extraneous to a repetitive mental task, many workers can, with acceptance of intent to do so, and after practice, coordinate a repetitive psychomotor task with rhythmic timing, such as was used in this experiment, with a high degree of efficiency and sometimes at rates equalling self-directed performance. But there are wide individual differences in efficiency in this respect. Awareness is found to oscillate in focus between the rhythmic timing rate and the adding rate, particularly during the early stages of practice where timing and performance appear to be distinct. The conscious process of co-ordination is highly individual and includes individually selected cues as guides to performance. Rhythmic ability, a conscious acceptance of instructions, and a conscious learning process of analysis and intentional use of cues, are necessary to successful performance.—*M. D. Vernon* (Cambridge, England).

210. Gardner, J. W. The association-motor technic for studying mental conflict. *Psychol. Bull.*, 1937, 34, 563-564.—Abstract.—*R. H. Brown* (Clark).

211. Glanville, A. D., & Kreezer, G. The characteristics of gait of normal male adults. *J. exp. Psychol.*, 1937, 21, 277-301.—The aim of this study was to determine the characteristics of gait of a sample of normal male adults by means of a method for analysis of gait previously described by the authors (*J. genet. Psychol.*, 1937, 50, 109-136). Results are presented in the form of tables of norms to facilitate their use in investigations of the deviations that may occur in individual subjects and in groups of subjects of different types from those examined in the present study. The properties of gait investigated fall under three main headings: (1) properties relating to temporal-spatial patterns of foot-contacts; (2) properties relating to changes in position of particular body parts, measured in degrees; and (3) over-all properties of gait relating to the walking activity as a whole. Certain features of gait exhibited by the graphical records are discussed in terms of their neurological basis and the role they play in the organized activity of walking.—*H. W. Karn* (Pittsburgh).

212. Gottschick, J. Die Zwillingsmethode und ihre Anwendbarkeit in der menschlichen Erb- und Rassenforschung. (The "twin method" and its applicability to the study of human heredity and race.) *Arch. Rass.- u. GesBiol.*, 1937, 31, 185.—In its present form the procedure of deciding the identity of twins on the basis of biological diagnosis is incomplete and leads to erroneous conclusions.

These may often be avoided by an empirical deduction of proof; but even on this basis absolute certainty cannot be obtained.—*P. L. Krieger* (Leipzig/Munich).

213. Grassé, P. *Recherches sur la systématique et la biologie des termites de l'Afrique occidentale française*. (Studies on the classification and biology of the termites of French West Africa.) *Ann. Soc. ent. Fr.*, 1937, 106, 1-100.—The author discusses the supposed communication between termites and denies its existence. He also denies the intentional interference of these insects with the cultivation of mushroom beds near their nests.—*G. Goldman* (Sorbonne).

214. Grassé, P. *Sur une double rassemblement de *Torymus auratus**. (On a double assemblage of *Torymus auratus*.) *Bull. Soc. ent. Fr.*, 1936, 41, 262-265.—In the mountains at an altitude of about 1500 meters the author witnessed 2 assemblages of these hymenoptera, the first composed only of females, the second of males, each group composed of several hundreds of thousands of individuals. The 2 assemblages were about 400 meters apart. Though these manifestations are social in character, they do not imply any tendency to life in an organized society.—*M. H. Piéron* (Sorbonne).

215. Hill, L., & Taylor, H. J. *Action of the galvanic current on the skin*. *J. Physiol.*, 1937, 90, 93-94P.—Galvanic current passed through the skin of the forearm causes a whealing and flushing under the pad electrodes. These effects are much less marked in the front of the wrist and entirely absent in the palm. By the use of chemical indicators traces of acid and alkali were found under the positive and negative poles respectively. The pain accompanying the skin reactions is due to stimulation of sensory nerve endings by H or OH ions set free at the two poles by electrolysis.—*M. A. Rubin* (Worcester State Hospital).

216. Holz, L. *Experimentell-psychologische Untersuchungen während des Menstruationszyklus*. (Experimental psychological investigations during the menstrual cycle.) Greifswald: Adler, 1934.—*R. R. Willoughby* (Brown).

217. Hoover, E. E. *Experimental modification of the sexual cycle in trout by the control of light*. *Science*, 1937, 86, 425-426.—Trout taken from their habitat and placed in aquaria where the amount of light reaching them could be controlled so as to vary the apparent daylight period were found to have produced eggs three or four months before the normal egg-ripening time.—*F. A. Mote, Jr.* (Brown).

218. Jann, W. *Die Bedeutung gewisser Hormone bei lethargischen Zuständen und Winterschlaf (Hypnose von Fröschen)*. (The significance of certain hormones in lethargic conditions and hibernation; hypnosis of frogs.) *Helv. med. Acta*, 1937, 4, 355-370.—Frogs can endure unphysiological conditions (water low in oxygen content) better when hypnotized than in their normal state. Low temperature makes the hypnosis deeper, while heat terminates it. A stimulus such as sound or light

causes an immediate increase in breathing rate, which is otherwise very slow during hypnosis. The latent period before the animal awakens varies with the temperature. Because a prolonged exposure to cold resulted only in a sort of preliminary state of hibernation, an attempt was made to change the hypnosis into a state resembling hibernation by further decreasing the metabolism. This was done gradually by feeding small daily doses of insulin. Thyroxin terminated this condition. This experiment raises the question whether certain lethargic and cataleptic conditions may not be caused by unbalanced production of hormonal substances similar to insulin.—*P. L. Krieger* (Leipzig/Munich).

219. Jezler, A. *Die Hemmungsreaktion von Donaggio*. (Donaggio's inhibitory reaction.) *Helv. med. Acta*, 1937, 4, 274.—The diagnostic value of the urinary inhibition, discovered by Donaggio, is questioned in connection with distinguishing between normal and pathological conditions, though this test may have certain practical uses in indicating the occurrence of fatigue in athletes.—*P. L. Krieger* (Leipzig/Munich).

220. Johnson, E., & Davis, D. M. *Dexterity quotients of seven-year-olds in terms of hand usage*. *J. educ. Psychol.*, 1937, 28, 346-354.—A revised form of the Johnson-Duke Iowa hand usage test (*J. educ. Psychol.*, 1936, 27, 26-36) is presented. The revision of the test involves an increase in the number of items, the elimination of items found to be invalid in terms of a criterion of internal consistency, and the adoption of the rule that each item is to be scored only for two responses. Norms based on 100 normal seven-year-old children are presented. The median dexterity quotient was found to be .83 (83% of the responses were with the right hand). This is higher than the median for six-year-old children obtained with the original test.—*A. W. Mellon* (Missouri).

221. Kappauf, W. E. *A comparative study of optic nystagmus*. *Psychol. Bull.*, 1937, 34, 518-519.—Abstract.—*R. H. Brown* (Clark).

222. Klein, R. *Analyse der Erholungsphase nach Strangulation auf Grund einer Beobachtung*. (Observation and analysis of the recovery phase following strangulation.) *Msschr. Psychiat. Neurol.*, 1936, 93, 93.—The unconsciousness of persons revived after hanging is usually followed by a hyperkinetic phase. The case under observation passed with gradual improvements through a stage of considerably reduced intellectual and motor activity before returning to a normal condition. Amnesia after strangulation resembles similar conditions following skull fractures. This seems to point to a syndrome which invariably appears under certain pathophysiological conditions. The brain stem appears to be the point of origin.—*P. L. Krieger* (Leipzig).

223. Lancaster, W. B. *Physiology of disturbances of ocular motility*. *Arch. Ophthalmol., Chicago*, 1937, 17, 983-993.—Ocular muscles are of such strength that only about 1/50 of the fibers in a muscle need contract in order to move the eye; the muscles are so attached that a maximal contraction would rotate

the eye three or four times as far as is normally required. Muscles then are not usually too weak, but the coordinating mechanism is not functioning satisfactorily when muscle imbalance causes discomfort. The difficulty may be attributed to inefficiency in the supranuclear centers, origins of the patterns of nervous stimuli to be sent out to the 12 ocular muscles. Quick compensation for imbalances artificially produced indicates the variability of these patterns under the impulse to fusion. Correction of muscular imbalance by operation represents establishment of conditions under which the neuromuscular mechanism, "the fusion faculty," can more readily effect adjustments; orthoptic training is designed not to strengthen weak muscles but to develop more efficient neuromuscular adjustments.—*M. R. Stoll* (Mass. Eye & Ear Infirmary).

224. Liddell, E. G. T. **Experimental reflex rigidities.** *J. Physiol.*, 1937, 90, 89P.—Connection of the spinal cord with levels higher than the intercollicular level is essential for the maintenance of rigidity induced by dorsolateral lesion of the spinal cord.—*M. A. Rubin* (Worcester State Hospital).

225. Louttit, C. M. **Reaction time of brake application to visual and auditory stimuli.** *Psychol. Bull.*, 1937, 34, 565.—Abstract.—*R. H. Brown* (Clark).

226. McCulloch, T. L. **The use of the "comfort" drive as motivation in visual discrimination by the infant chimpanzee.** *Psychol. Bull.*, 1937, 34, 540-541.—Abstract.—*R. H. Brown* (Clark).

227. McFarland, R. A. **Psycho-physiological studies at high altitude in the Andes. III. Mental and psycho-somatic responses during gradual adaptation.** *J. comp. Psychol.*, 1937, 24, 147-188.—The data of this investigation were obtained by testing the 10 members of the International High Altitude Expedition to Chile while they were at each of several altitudes ranging from 9200 to 20,140 feet. Speed of apprehension, judgment of duration, repetition of auditory patterns, perseveration, code transliteration, memory, dreams, physiological and psychological complaints, weight, and biochemical measures were recorded. Psychological functions showed decrements at 15,440 feet which became greater at 17,500 and 20,140 feet. "The psycho-somatic changes or physiological and psychological complaints paralleled quite closely the periods of greatest discomfort in adapting to the altitude." Correlations between psychological and biochemical functions were insignificant. "The decreased capacity for mental work at the highest altitudes is attributed to the chemical-cellular changes in the central nervous system due to the lack of oxygen in the air and blood. The changes in the psycho-somatic behavior are attributed to the effect of the diminished oxygen on both the central and vegetative nervous systems." Extensive bibliography.—*N. L. Munn* (Peabody).

228. McFarland, R. A. **Psycho-physiological studies at high altitudes in the Andes. IV. Sensory and circulatory responses of the Andean residents at**

17,500 feet. *J. comp. Psychol.*, 1937, 24, 189-220.—Sensory, neuro-circulatory and biochemical measurements were made on a group of permanent residents (miners) at 17,500 feet in the Andes and compared with those of workmen of similar age and race at sea level. Comparisons were also made between the Andean individuals and members of the International High Altitude Expedition to Chile. Slower simple and choice reaction time and less acute auditory sensitivity occurred at the high altitude than at sea level. These results are attributed to unfamiliarity of tests, to diminished partial pressure of oxygen, and to the peripheral effects of exposure to the elements. The residents at high altitude appeared to have some of the circulatory and respiratory characteristics of athletes at sea level. Their neuro-circulatory efficiency surpassed that of the members of the expedition and the workers at sea level. "Altitudes in the neighborhood of 17,500 to 18,500 feet (10.5 per cent oxygen) appear to be the highest to which man can become permanently adapted." Extensive bibliography.—*N. L. Munn* (Peabody).

229. Mittermaier, R. **Zur Technik der Gleichgewichtsdrehprüfung.** (The technique of testing equilibrium by rotation.) *Hals. Nas. Ohrenarzt*, 1937, 28, 254-262.—*P. L. Krieger* (Leipzig/Munich).

230. Mörikofer, W., & Stahel, R. **Testmethoden zur Erforschung der Wetterfähigkeit.** (Test methods for the investigation of weather sensitivity.) *Schweiz. med. Wschr.*, 1937, 67, 400-406.—Besides different known test methods it is especially discussed how far the leucocyte fall of E. F. Müller can be used as an indicator for weather sensitivity. The influence of the weather on the vegetative nervous system can in principle be determined from this. The author guards himself, however, from premature conclusions in view of his still small experimental material; above all, the course of the leucocyte fall with weather influence may be dependent upon individual endogenous factors and pathological changes.—*P. L. Krieger* (Leipzig/Munich).

231. Moses, B. L. **Contraception as a therapeutic measure.** Baltimore: Williams & Wilkins, 1936. Pp. xiii + 106.—This is a report, introduced by Pearl, of the work done at the Bureau of Contraceptive Advice, Baltimore, in advising 1152 highly fertile women examined over a five-year period, of whom 1069 were treated with contraceptives. Average age at first visit was 30.61 years; average duration of marriage was 10.91 years. Husbands were 4.7% from managerial and professional occupations, and 95.3% from unskilled and skilled labor, clerks, farmers, domestics, etc. Estimates of intelligence of the women were made by the physician taking the history. Of the treated cases, 641 (59.96%) were considered low, 383 (35.83%) medium, and 45 (4.21%) high, a distribution which compares favorably with a tested smaller sample within the group, of 51 cases who were given the Stanford-Binet. The success or failure in following advice was measured by the results. Undesired pregnancies were

experienced by 158 white patients (18.22% of the 867 treated) and by 76 negro patients (37.62% of the 202 negroes treated), or twice as many negro as white, proportionately. Divided according to intelligence, the following percentages of failure were obtained for whites and negroes: low, 57.52 and 76.44; medium 37.92 and 22.12; high, 4.56 and 1.44. The 20% greater difference for negroes of low intelligence accounts largely for their greater number of failures. Active cooperation is required of patients to use the contraceptive methods after careful instruction is given at the clinic, four or more times for some women, but some patients fail to use the methods or follow details as advised.—G. C. Schwesinger (American Museum of Natural History).

232. Neujahr, H. Über Störungen des Erwachens. (Disturbances of the awakening process.) Böttrop: Postberg, 1937. Pp. 14.—R. R. Wiloughby (Brown).

233. Nogue, J. Présence et absence. (Presence and absence.) *Rech. phil.*, 1935-1936, 5, 347-363.—The author defines the conscious being as the being who is hungry, whose presence in the world is dependent on some needed object which it must appropriate to itself. He analyzes the ideas of presence and absence, space and time, and knowledge. He points out that love of existence implies an absence, which is the reason for love and non-possession, hunger and non-satisfaction.—G. Goldman (Sorbbonne).

234. Peters, H. N. A note on verifications of the judgmental theory of pleasantness and unpleasantness. *Psychol. Rev.*, 1937, 44, 533-535.—The author had previously suggested an experimental verification of Carr's judgmental theory, in which stimulus items arousing consistently positive or negative reactions were to be judged as to hedonic tone before and after learning, and a comparison made to determine whether those eliciting positive reactions had moved in the direction of pleasantness and vice versa. This experimental verification has been furnished by recently reported Russian studies. Also in Thorndike's studies on wants, interests, and attitudes it is clear that it is the learning which conditions the pleasantness and unpleasantness rather than the reverse.—A. G. Bills (Cincinnati).

235. Piddington, M. The frustration of the maternal instinct and the new psychology. *Aust. J. Psychol. Phil.*, 1937, 15, 205-220.—Psychology as a whole has neglected consideration of the maternal instinct, which appears to exist independently of sex. In the day of a more practical psychology this neglect is serious. Careful study can and should be made of the psychology of motherhood, especially in cases where the impulse is frustrated. The social problem represented by this need is important in regard to unmarried as well as married women.—H. D. Spoerl (American International College).

236. Richardson, L. F. Hints from physics and meteorology as to mental periodicities. *Brit. J. Psychol.*, 1937, 28, 212-215.—M. D. Vernon (Cambridge, England).

237. Richter, C. P., Holt, L. E., Jr., & Barelare, B., Jr. Vitamin B₁ craving in rats. *Science*, 1937, 86, 354-355.—These investigators find that this vitamin in aqueous solution satisfies what appears to be one of the strongest cravings in rats. Two animals deficient in the vitamin drank large amounts of it; one took 11 cc. or 5500 international units in a half hour, the other 29 cc. or 14500 units in 24 hours. They are responsive to its odor as well as to its taste, for the solution was detected from among a number of other solutions in similar containers.—F. A. Mote, Jr. (Brown).

238. Scheurer, O., & Zimmermann, H. Sind die Hauttemperaturen von Mann und Frau verschieden, besteht ein Unterschied zwischen Tag und Nacht? (Are the skin temperatures of man and woman different, and is there a difference between day and night?) *Z. ges. exp. Med.*, 1937, 100, 417-426.—Over 10,000 measurements of skin temperatures were taken. The course of skin temperature is independent of the body temperature. The former always lies below the internal temperature. The skin temperature of the male in the daytime is almost a degree (0.8) higher than that of the female. In the male it drops during the night, while in the female it appears to remain the same, or even to increase.—P. L. Krieger (Leipzig/Munich).

239. Schlomka, G., & Rodewald, R. Beiträge zur klinischen Elektrokardiographie. VII. Mittg. Über die Abhängigkeit des Elektrokardiogrammtyps von Körperbau. (Contributions to clinical electrocardiography. VII. The dependence of electrocardiogram type upon physical type.) *Z. klin. Med.*, 1937, 132, 494.—The authors found that differences in position of the heart (perpendicular or transverse) did not in themselves have the importance ascribed to them in correlation with physical type.—P. L. Krieger (Leipzig/Munich).

240. Searle, L. W., & Brown, C. W. The effect of injections of benzedrine on the activity of white rats. *Psychol. Bull.*, 1937, 34, 558-559.—Abstract.—R. H. Brown (Clark).

241. Shock, N. W., & Coombs, C. H. The reliability and validity of some indices of changes in skin resistance as a measure of affectivity. *Psychol. Bull.*, 1937, 34, 559-560.—Abstract.—R. H. Brown (Clark).

242. Siemens, H. W. Einige Bemerkungen über die Ähnlichkeitsdiagnose der Eineiigkeit. (Some remarks concerning the similarity diagnosis of zygosity.) *Arch. Rass.-u. GesBiol.*, 1937, 31, 211.—The author maintains the validity of the similarity diagnosis on the basis of the conventional biological method, taking issue with Gottschick, whose article appears in the same issue.—P. L. Krieger (Leipzig/Munich).

243. Simonson, E. Recherches sur la physiologie de la course. (Experiments on the physiology of foot racing.) *Travail hum.*, 1937, 5, 286-305.—A period of warming up which is effective in increasing speed for 100 meters is not effective for a rate of 1000 meters. Both distances were run more rapidly

under hypnosis. Threads placed every 4 meters along the course, operating electrical contacts, made it possible to note the speed over different portions of the race. Often it showed a rapid acceleration, then a leveling off, and finally a slowing down toward the end. Individuals differed in fluctuation, especially at level portions of the curve. The reaction time for the start of the race was measured electrically and varies from 0.1 to 0.59 seconds. Experienced runners have shorter reaction times of this sort. Records of length of stride show that this length varies directly with the speed at the different stages of the race.—*H. E. Burt* (Ohio State).

244. **Spielberg, P.** *Die Aktionsströme der Muskeln und die Biodynamik der Bewegungen des Menschen bei verschiedenen physiologischen Bedingungen.* (Action current of muscles and the biodynamics of movements with different physiological conditions.) *Arbeitsphysiologie*, 1936, 9, 366-375.—A subcutaneous technique is described for recording action currents along with records of actual movements made on the ergograph or in lifting weights. Fatigue manifests itself by a decrease of the rhythm of the action and by increase of effort.—*H. E. Burt* (Ohio State).

245. **Steinbacher, J.** *Vögel halten "Winterschlaf."* (Birds hibernate.) *Natur u. Volk*, 1937, 67, 450.—Observations over several years in Germany have shown that migrating birds, e.g. swallows, during unexpected periods of cold or bad weather huddle together irregularly in grape-shaped clumps and roll themselves up in a condition resembling hibernation, for mutual protection against hunger and cold.—*P. L. Krieger* (Leipzig/Munich).

246. **Steinitzer, F.** *"Ekelgeschmack" und visuelle Anpassung einiger Insekten (Fütterungsversuche an Vögeln).* (Nauseous taste and visual adaptation of certain insects; feeding experiments on birds.) *Z. wiss. Zool.*, 1937, 149, 221-257.—The insect-eating birds are not to be regarded as a unitary group of insect enemies in respect to the problem of protective adaptation. With regard to the manner of getting their prey, the separate kinds of birds differ widely from one another.—*P. L. Krieger* (Leipzig/Munich).

247. **Stone, C. P.** *A quantitative study of copulatory frequency in male rats following castration.* *Psychol. Bull.*, 1937, 34, 556.—Abstract.—*R. H. Brown* (Clark).

248. **Strauss, E.** *Le mouvement vécu.* (Experienced movement.) *Rech. phil.*, 1935-1936, 5, 112-138.—The author analyzes completed or experienced movement and declares that the psychology of movement should not have to depend absolutely upon its physiology. The object of physical knowledge is a *moved* body; the object of psychological knowledge is a *moving* body. The essential difference lies in this fact—the physics of movement is expressed in the perfect tense; its psychology in the present.—*G. Goldman* (Sorbonne).

249. **Thomas, M.** *La notion de l'instinct et ses bases scientifiques.* (The concept of instinct and its scientific basis.) Paris: Vrin, 1936. Pp. 310.

Fr. 20.—The author gives a historical review of the majority of the works on this subject. He defines instinct as follows: "Instinct, like intelligence, is life. Apart from it life means nothing and without it life would be impossible. . . . It interprets the will, the original and universal knowledge of how to behave, which is present in all living beings. . . . It is the essential hereditary awareness of a plan of specific living."—*G. Goldman* (Sorbonne).

250. **Tiitso, M.** *Über die Methode der Registrierung von Pulsintervallen als Ordinate im Tierversuch.* (Method for recording pulse intervals as the ordinate in animal experimentation.) *Pflüg. Arch. ges. Physiol.*, 1937, 239, 265-273.—*M. A. Rubin* (Worcester State Hospital).

251. **Werner, C. F.** *Die morphologischen Grundlagen der statischen Labyrinthreflexe.* (The morphological bases for the static labyrinth reflexes.) *Pflüg. Arch. ges. Physiol.*, 1937, 239, 290-292.—*M. A. Rubin* (Worcester State Hospital).

[See also abstracts 9, 35, 58, 67, 89, 141, 179, 194, 265, 303, 330, 342, 395, 438, 484, 558, 565, 567, 576, 579, 580, 586, 587.]

PSYCHOANALYSIS, DREAMS, HYPNOSIS

252. **Bonaparte, M.** *Vues paleobiologiques et biopsychiques.* (Paleobiological and biopsychic views.) *Rev. franç. Psychanal.*, 1936, 9, 422-429.—Anxiety caused by complexes of castration and perforation arises from a primitive biological reaction of fear of injury to the protoplasm. The fear of injury by the external world has to be overcome to such an extent that respiratory and nutritive processes may go on. Thus oral, anal, and urethral eroticism express the satisfaction of the individual who functions digestively with harmony. There is always an antagonism between the integrity of the individual and the perpetuation of the species. The fear of perforation is very general, and can be noticed in many females of animal species where fecundation is internal, as well as in humans, where the most neurotic anxiety can be traced back to a reaction before a real danger. The anxiety is greater in humans than in animals, because of the development of the brain and hence the threat felt to the ego.—*F. G. Allen* (Brown).

253. **Cantril, H.** *Experimental studies of prestige suggestion.* *Psychol. Bull.*, 1937, 34, 528.—Abstract.—*R. H. Brown* (Clark).

254. **Codet, H.** *Le Freudisme en psychothérapie.* (Freudism in psychotherapy.) *Evolut. psychiat.*, 1936, No. 3, 43-66.—The author applies Freudian concepts to a modern psychotherapy in which he takes cognizance of the limitations of psychoanalytic treatment on the one hand and conditions of a practical and social nature on the other hand.—*G. Goldman* (Sorbonne).

255. **Dalbiez, R.** *La méthode psychanalytique et la doctrine freudienne.* Tome I: Exposé. Tome II: Discussion. (The psychoanalytic method and the Freudian doctrine. Vol. I. Exposition. Vol. II.

Discussion.) Paris: Desclée de Brouwer, 1936. Pp. iv + 656; 528. Fr. 100.—In the first volume the author gives an exposition of psychoanalysis. Theoretical considerations of the Freudian doctrine are followed by an analysis of various psychological deviations and various neuroses in the light of this doctrine. Volume II consists of a discussion of psychoanalysis. The author, without trying to hide the doctrinal weaknesses, endeavors to evaluate the essential aspects of Freud's work, i.e., his method of exploring the unconscious. This volume, which is rich in personal observations, brings out the convergence of both metaphysics and physiology toward psychoanalysis. The author examines objectively Freudian sexology and studies morbid psychological causality and the relationship of psychoanalysis to life. Bibliography.—G. Goldman (Sorbonne).

256. Guinchant, J. *La "science nouvelle" du pendule n'est qu'une nouvelle "science occulte."* (The "new science" of the pendulum is only a new "occult science.") *Rev. sci., Paris*, 1936, 74, 673-685.—The author concludes that radiant sensitivity of the present day has no scientific value. The bibliography contains 25 titles.—M. H. Piéron (Sorbonne).

257. Kellner, K. *C. G. Jung's Philosophie auf der Grundlage seiner Tiefenpsychologie.* (C. G. Jung's philosophy on the basis of his depth psychology.) Dürren: Spezial-Diss.-Buchdr., 1937. Pp. 95.—R. R. Willoughby (Brown).

258. Laforgue, R. *Clinique psychanalytique. Conférences faites à l'Institut de Psychanalyse de Paris, 1934, 1935, 1936.* (The psychoanalytic clinic. Lectures given at the Institute of Psychoanalysis, Paris, 1934, 1935, and 1936.) Paris: Denoël & Steele, 1936. Pp. 192. Fr. 30.—In a series of twelve lectures the author discusses the following neuroses: the positive and negative Oedipus complex, sexual frigidity in women, the Carmelite neurosis, fear of failure, and familial neuroses. He gives the fundamental rules for appropriate psychoanalytic treatment.—G. Goldman (Sorbonne).

[See also abstracts 56, 186, 269, 317, 326, 362, 370, 389, 397, 417, 435, 440, 463.]

FUNCTIONAL DISORDERS

259. Alquier, L. *La douleur indépendante des affections neurologiques.* (Pain which is independent of neurological affections.) *Rev. neurol.*, 1937, 67, 104-105.—Pain from a tissue origin is due to a conflict between the non-extensibility or the retraction of the tissue and a swelling caused by an exudative congestion which causes distention. These pains may be called sympathalgias.—M. H. Piéron (Sorbonne).

260. Alström, C. H. *Morbiditets- och mortalitetsundersökning bland olika psykosgrupper.* (Moridity and mortality investigation among different groups of psychoses.) *Svenska Läkartidn.*, 1937, 34, 1258-1264; 1354-1361.—Several new Swedish in-

vestigations are discussed in the light of the general literature on the problem. Bibliography.—M. L. Reymert (Mooseheart Laboratory for Child Research).

261. Anderson, C. M. *Emotional hygiene.* Philadelphia: Lippincott, 1937. Pp. 242. \$2.00.—The effects of human motives and drives on conduct and behavior are presented in an easily understood manner. The author suggests the reasons for growth in personal integration, the promotion of more satisfactory relations with people, and the nature of human adjustments, giving the basic principles of mental hygiene in non-technical terms.—E. D. Hunt (Brown).

262. Aubrun, W. *L'état mental des parkinsoniens.* (The mental state in Parkinson's disease.) Paris: Baillière, 1937. Pp. 156.—The author gave patients various association tests (those of H. and M. H. Piéron, Kent-Rosanoff, Rorschach, etc.), and he studied their psychomotor reactions and their reactions to emotional shock by means of records from the pulse, respiration, skin, and blood. All his investigations led him to conclude, along with Bleuler, Peterson-Jung, and others, that the basis of the psychological modifications in Parkinson's disease is to be found in deep-seated disturbances in elementary emotivity which bring about indifference and abulia, diminution in the power of concentration, and a more or less marked weakening in the intellectual powers in general. The bibliography lists about 200 authors.—G. Goldman (Sorbonne).

263. Backlin, E. *Om bedömning och behandling av sinnessjuka och psykiskt abnorma brottslingar.* (On the diagnosis and treatment of insane and mentally abnormal criminals.) *Soc.-med. Tidskr.*, 1937, 14, 183-188.—Continuation of earlier article. (See XI: 5893.)—M. L. Reymert (Mooseheart Laboratory for Child Research).

264. Betzendahl, W. *Unweltempfinden und Eigenbeziehung bei einer Basedowpsychose.* (Perception and relation to self during a Basedow psychosis.) *Msschr. Psychiat. Neurol.*, 1937, 96, 129-142.—The case history of a psychosis accompanying a toxic condition. Though there was unquestionably malfunctioning of the thyroid, the old doctrine of a combination psychosis (in this case, paranoia) appears to be verified. When endocrines function abnormally, psychic changes are determined largely by the individual's premorbid personality. In this example the patient's illusions almost invariably were tied up with objective realities. The characteristic aspect of his relation to himself was that all parts of his personal existence seemed to be devoid of content.—P. L. Krieger (Leipzig/Munich).

265. Bize, R. *Réflexe de sursaut chez deux enfants atteints d'encéphalopathie.* (The startle reflex in two children having encephalopathy.) *Rev. neurol.*, 1937, 67, 108-112.—The startle phenomenon seems to be a constitutional reflex which can be brought under control through training. However, this inhibition necessarily implies the anatomical

possibility of such training, and the author gives the cases of two children afflicted with encephalopathy who were unable to bring about this inhibition.—*M. H. Piéron* (Sorbonne).

266. **Bram, I.** *The individual behind the disease.* *Med. Rec., N. Y.*, 1937, 246, 352-354.—Discussion is given of various psychic factors at work in disease, and emphasis is placed on the role that should be played in the essential psychotherapy by the personality attributes of the physician.—*M. H. Erickson* (Eloise Hospital).

267. **Braun, E.** *Manisch-depressiver Formenkreis.* (Manic-depressive cycles.) *Fortschr. Neurol. Psychiat.*, 1937, 9, 380-390.—The first part of the article is devoted to a full account of the fourth edition of Bumke's textbook of mental diseases. The problem of nomenclature is discussed with reference to Bumke's term "pyknic-thymopathic constitution." Many features of this constitution are to be found in greater or less degree in all types of psychopathic personality. The author reviews other literature concerned with manic-depressive psychosis as related to personality, incidence and form in children, endocrine disorders and other fields. Bibliography.—*D. S. Oberlin* (Delaware State Hospital).

268. **Brousseau, A.** *Les conceptions allemandes modernes relatives à l'hérédité et à l'eugénique des insuffisances intellectuelles (oligophrénie).* (Modern German conceptions relative to heredity and to the eugenics of oligophrenia.) *Rev. méd. franç.*, 1937, 18, 211-221.—A critical study of the inheritance of mental deficiencies. The scientific studies which have been carried out in connection with the law for the sterilization of mental defectives have demonstrated that these defectives appear in large proportions due to the transmission and the conjunction of hereditary factors.—*M. H. Piéron* (Sorbonne).

269. **Cénac, M., & Loewenstein, R.** *Mécanisme des inhibitions de la puissance sexuelle chez l'homme.* (The mechanism of inhibitions of sexual potency in the male.) *Evolut. psychiat.*, 1936, 3, 5-25.—A Freudian analysis of the principal forms of neurotic disturbance of sexual potency in men and the pathogenic mechanism involved.—*G. Goldman* (Sorbonne).

270. **Christiani, V.** *Psychischen Störungen bei chronischer Bleivergiftung.* (Mental disturbances in chronic lead poisoning.) Düsseldorf: Nolte, 1937. Pp. 23.—*R. R. Willoughby* (Brown).

271. **Crichton-Miller, H.** *The frontiers of psychotherapy.* *Brit. J. med. Psychol.*, 1937, 16, 165-183.—An attempt to delimit the functions of psychotherapy in relation to allied fields. Little help can be expected on the therapeutic side from neurology, which is preoccupied with diagnostic localization. Because a condition is curable by psychotherapy does not mean that psychotherapy is the best cure for it; the endocrinologist may have a better cure. Sociology is important because the bulk of patients come to the psychotherapist because they

are maladjusted to society. Philosophy is recommended, chiefly as a corrective for Freudians. Religion, also, cannot be shut out of psychotherapy.—*E. R. Hilgard* (Stanford).

272. **Crothers, B.** *A pediatrician in search of mental hygiene.* New York: Commonwealth Fund, 1937. Pp. 271. \$2.00.—A general survey is made of the practice of medicine and of the teaching done in medical schools and teaching hospitals in relation to the problems of mental hygiene. There follows a general plan for bringing behavior problems under review in a children's hospital. The book is divided into: "Part I, Mental Hygiene in the Practice of Medicine"; "Part II, Mental Hygiene in the Teaching of Medicine"; and "Part III, Towards Meeting the Pediatrician's Responsibility"; these contain, respectively, 5, 6, and 3 chapters. Some of the chapters are: "Mental Hygiene as a Pediatric Investment," "The Responsibility of the Psychiatrist for Mental Hygiene," "The Pediatrician in Cooperation With Others Interested in Children," "Potential Contributions of the Child Guidance Clinic," "The Social Worker in a Children's Hospital," and "The Pediatrician's Definition of Mental Hygiene." Throughout the book emphasis is placed upon the need for the correlation of mental hygiene with general medicine rather than its addition as a separate consideration.—*M. H. Erickson* (Eloise Hospital).

273. **Doll, E. A.** *The inheritance of social competence.* *J. Hered.*, 1937, 28, 152-165.—The revised Vineland social maturity scale is presented in its entirety, with pictorial illustrations sampling behavior at different social-age levels. The scale measures social competence from infancy, listing such items as crowing and laughing shortly after birth to full-fledged adult behavior which "advances social welfare." Personal independence and social responsibility are revealed in six major areas of expression: self-help, locomotion, communication, occupation, self-direction, and socialization, the behavior performances increasing in complexity with age advance. The scale has a reliability of $r = .94$ for repeat examinations with different examiners and different informants and a validity of $r = .85$ as measured against estimates. A SA (social age) of 18 years is the dividing line between adult mental deficiency and normality (as against an MA of 12 years); an SA of 25 years is average adult level as against a Binet MA of 14 years. Among feeble-minded, SA scores approximate MA scores to the age of 15, after which they run about one year higher. Social quotients, or SQ's, vary accordingly. The use of the scale is demonstrated on three genealogical tables running into four generations. An especially valuable feature is its applicability in absentia, and its universality from one generation to another. Cautions are given as to its use in searching for eugenic implications.—*G. C. Schwesinger* (American Museum of Natural History).

274. **Doll, E. A., & McKay, B. E.** *The social competence of special class children.* *J. educ. Res.*,

1937, 31, 90-106.—Comparison of social competence of feeble-minded cases committed to institutions with those who attend special classes in the public schools is made by results from the Vineland social maturity scale, a copy of which is reproduced in the article. 38 children in special classes in the Vineland, N. J., schools were paired with children of the same chronological and mental ages in the institution in the same town. A statistical treatment of the results indicated that the special class children are noticeably superior on one-third of all of the test items, but rather more so on those where self-direction carries most weight.—S. W. Fernberger (Pennsylvania).

275. Erickson, M. H. "Arrested" mental development. *Med. Rec.*, N. Y., 1937, 246, 352-354.—Two clinical cases, each with a psychometric history of over 6 years, are cited. The first illustrates complete arrest of mental development with the mental age, first determined at the chronological age of 11, remaining constant at 8 years, 10 months, with a consequent change in IQ from 80 at age 11 to 55 at age 16. The second case illustrates partial arrest with retarded mental development eventuating in a complete arrest, with a change in IQ of 61 at age 6 to an IQ of 33 at age 16, despite an increase in mental age from 3 years, 10 months at age 6 to a final mental age of 5 years, 4 months. In discussion attention is directed to (1) the need for long continued psychometric studies, (2) the possible inadequacy and misleading character of valid psychometric findings, (3) the significance of clinical findings in problems of differentiation and classification of intelligence defects, and (4) the significance of these findings in the study of the growth and development of intelligence.—M. H. Erickson (Eloise Hospital).

276. Ernst, H. Untersuchungen über Erblichkeit des Schwachsinn und die Fortpflanzung Minderwertiger in den Hilfsschülerfamilien Wiesbadens und Wiesbaden-Biebrichs. (Investigations on the heredity of feeble-mindedness and the reproduction of defectives in the families of special-school pupils in Wiesbaden and Wiesbaden-Biebrich.) Gütersloh i. Westf.: Thiele, 1936. Pp. 16.—R. R. Willoughby (Brown).

277. Essen-Möller, E. Ny steriliseringslag? (New sterilization law?) *Svenska Läkartidn.*, 1937, 34, 1369-1379.—The regulations of Jan. 1, 1935 made it obligatory that records of all sterilizations in Sweden be sent to the state medical board. The writer states that these records do not clearly enough demonstrate the justifiability of the particular sterilizations and that they indicate that sterilizations have not nearly reached the frequency they should in relation to the number of actual defectives needing sterilization. An extension of the law of voluntary sterilization toward more compulsory measures is advocated. It is also proposed that local centers for passing upon applications be established, rather than the cumbersome present arrangement whereby all applications must go to a central state board.—M. L. Reymert (Mooseheart Laboratory for Child Research).

278. Ey, H. Quelques aspects de la pensée paranoïde et catatonique. (Certain aspects of paranoid and catatonic thinking.) *Evolut. psychiat.*, 1936, 4, 27-59.—An elaborate analytic investigation of two clinical cases: a state of paranoid dementia as defined by Kraepelin and a state of catatonia.—G. Goldman (Sorbonne).

279. Ferrio, C. Das Fortlaufen als seltene Erscheinung der Migränepsychose. (Running away as an unusual symptom of a migraine psychosis.) *Allg. Z. Psychiat.*, 1937, 105, 276.—Two cases of migraine psychosis show that these vague conditions may lead to running away. This connection has not been previously noted in the literature on the subject.—P. L. Krieger (Leipzig/Munich).

280. Frankl, V. E. Zur geistigen Problematik der Psychotherapie. (Mental problems of psychotherapy.) *Zbl. Psychotherap.*, 1937, 10, 33-45.—Frankl advocates a world view or anthropological psychotherapy the biological basis of which is: consciousness is characterized by evidence-feeling and responsibility by safety-feeling. Psychoanalysis and individual psychology are complementary in world view. The former seeks to adjust instincts to reality; the latter advances to courageous ego-formation. But normal man must advance to a third stage—evaluation of existence and his individual life (timeless, might psychology). Responsibility is the anthropological center and justification of conscious existence. The patient, however, conscious of his responsibility, must choose his values independently. Existence-analytic attack is non-specific, i.e. it helps the patient, but does not reach the source of his trouble. Nevertheless it is the most economical method, particularly for intellectuals who displace their emotional difficulties into the mental sphere; mild neurotics; persons with insurmountable handicaps or grounds for depression; and those suffering from the apathy of economic need (unemployment neurosis).—M. E. Morse (Baltimore).

281. Golant-Ratner, R. Agnosie digitale et troubles psychiques. (Astereognosis and mental disorder.) *Ann. méd.-psychol.*, 1937, 95, Part 2, 201-214.—In certain psychopathic states patients exhibit the phenomenon of loss of tactile sensation. A relationship exists between neurological and psychopathological symptoms in some psychotics. The author reviews the literature, naming several investigators who have reported previously upon the appearance of astereognosis in patients suffering from various mental disorders. In addition he describes two such cases in which he believes that the presence of a bond between mental and physical pathology may not be denied.—M. Newburger (Cincinnati).

282. Graves, T. C. Nasopharyngeal sepsis in 2,056 cases of mental disorder. *Brit. med. J.*, 1937, Part 1, 483-486.—The patients were selected for the study on the basis of a coexisting septic condition and a mental disorder. Treatment of sepsis is emphasized.—D. J. Ingle (Mayo Foundation).

283. Guiraud, P. *Analyse du symptôme stéréotypie*. (Analysis of the stereotypy symptom.) *Encéphale*, 1936, 31, 229-270.—Under the general name of stereotypy we hear of two main groups of symptoms which differ greatly from each other. In one group of cases the term "uniform repetition" is used to signify that a given movement, each time it is performed, is executed in a uniform, invariable manner. In other cases the term is used to describe an act which is repeated immediately a number of times. For both groups the term "stereotypy" is used, and the author believes that the word should not be used to cover such a wide range of symptoms which differ in pathogenesis and in semeiotic value.—*M. H. Piéron* (Sorbonne).
284. Guttman, E., & Maclay, W. S. *Clinical observations on schizophrenic drawings*. *Brit. J. med. Psychol.*, 1937, 16, 184-204.—Five cases are presented and discussed. There are six full-page half-tone reproductions of drawings by patients. (One example of scribbling by a psychotherapist is included.) In some of the cases neologisms were created along with an urge for oral and graphic expression. In other cases drawings were resorted to in the effort by the patient to describe hallucinations. In addition to the value of the drawings in relation to the patient's symptoms and progress, they bear on the wider problems of artistic creation. 37 references.—*E. R. Hilgard* (Stanford).
285. Hallervorden, J. *Das Geburtstrauma als Ursache der Entwicklungshemmung im Kindesalter*. (Birth trauma as the cause of arrested development in childhood.) *Med. Klin.*, 1937, 33, 1224.—Birth trauma is an important cause of lesions of the brain and its vessels which result in retardation. Four types of destruction processes are distinguished, based on differences in cerebral circulation and the consequent nature and extent of the final changes: cavities and scars in the territory of a large arterial branch; injuries to the myelin sheaths in the drainage area of the central veins; cortical defects on the convexity in the fields of the meningeal veins and the longitudinal sinus; and miliary focal defects surrounding the intracortical arterioles.—*P. L. Krieger* (Leipzig/Munich).
286. Hildreth, H. M. *The effect of initial capacity on deterioration*. *Psychol. Bull.*, 1937, 34, 523.—Abstract.—*R. H. Brown* (Clark).
287. Horney, K. *The neurotic personality of our time*. London: Kegan Paul, 1937. 12s. 6d. net.—See XI: 3273.—*R. R. Willoughby* (Brown).
288. Horney, K. *Das neurotische Liebesbedürfnis*. (The neurotic need for love.) *Zbl. Psychotherap.*, 1937, 10, 69-82.—Horney discusses the characteristics and origin of the neurotic's need for love, recognition and advice, his difficulty in getting genuinely needed help, and his methods for attaining his end. The neurotic demand for love is obsessive, indiscriminate, monopolistic, and unconditional, accompanied by excessive sensitiveness to rebuffs and enmity on the slightest suspicion. Each of the usual theories of neurotic love explains only one aspect of a many-sided unitary phenomenon—increased life-anxiety. Transference is essentially an attempt to protect against anxiety; less an expression of sexuality than of need for human contact. The life-anxiety theory clarifies the Oedipus complex. It is probably not biological, but the question is how far it is a general phenomenon, and caused by neurotic parents. The methods of protection against life-anxiety are: a neurotic demand for love; subordination and devotion; obsessive striving for power and possessions; or withdrawal, either by emotional repression or by obsessive acquisition, in order to become independent of hostile mankind. In our culture the chief neurotic conflict lies between a ruthless struggle to be first and the simultaneous need to be universally loved.—*M. E. Morse* (Baltimore).
289. Horstmann, W. *Bedarf der Begriff des Psychogenen einer Revision?* (Does the concept of the psychogenic need revision?) *M Schr. Psychiat. Neurol.*, 1937, 96, 181-196.—The mimetic disturbances of paretics demonstrate the close relationship of organic and psychic conditioning and the difficulty of separating them. The same cortical damage produces both the disturbed innervation and the dementia, and these together give the soulless expression. The pathological reflex here runs parallel with the pathological reaction. Cooperation of the psychic is to be excluded only in cases in which response to a stimulus appears to be a sufficient basis. Obviously, the automatic life processes and the reflexes have teleological purposefulness, and, from the structural viewpoint, resemble voluntary acts. In tropisms especially, we see vital phenomena of the most primitive kind, in which assumption of dualism between psychic and organic is absurd.—*P. L. Krieger* (Leipzig/Munich).
290. Jayson, L. M. *Mania*. New York: Funk & Wagnalls, 1937. Pp. 271. \$2.00.—An autobiographical account of the author's mental and nervous breakdown, his commitment to a sanitarium, his gradual improvement, and final cure.—*R. R. Willoughby* (Brown).
291. Kempf, E. J. *Fundamental factors in the psychopathology and psychotherapy of malignant disorganization neuroses*. *Med. Rec., N. Y.*, 246, 341-345.—Psychophysiological considerations of psychic organization, repression, inhibition and anxiety are discussed. There follows a discussion of the significance and the applicability of the psychobiological approaches and the psychoanalytic approach in the therapy of malignant disorganization neuroses or dementia precox. It is concluded that the proper therapeutic psychoanalytic approach would benefit innumerable hospitalized patients suffering from malignant disorganization neuroses.—*M. H. Erickson* (Eloise Hospital).
292. Kinder, E. F. *A study of mentally defective subjects in a free situation*. *Psychol. Bull.*, 1937, 34, 522.—Abstract.—*R. H. Brown* (Clark).
293. Klein, R. *Beitrag zur Frage der hemianopischen Halluzinationen*. (Contribution to the

problem of hemianopic hallucinations.) *Msschr. Psychiat. Neurol.*, 1936, 92, 131.—P. L. Krieger (Leipzig/Munich).

294. Kohler, F. *Ein Beitrag zum Problem der Ichspaltung, dargestellt an Beispielen in der Literatur.* (A contribution to the problem of ego splitting, based on literary illustrations.) *Zbl. Psychotherap.*, 1937, 10, 82-103.—The problem of ego splitting in literature means the depiction of the borderland between the normal conflict of life forces and the schizophrenic loss of the ego. In this region the ego is threatened but not destroyed. The ego can be disrupted only by the powerful forces of "values" and instincts. The victim views the struggle as between "good" and "bad," which is correctly represented in literature as a moral or religious crisis. If to find one's self is a moral or religious duty, ego splitting is a sin of omission; in so far as life forces us continuously to build up our personality, it is inadaptability or retarded growth. Among the literary illustrations described at length are Marianne Sinclair (Lagerlöf, *Gösta Berling*) and Dr. Jekyll and Mr. Hyde (the "shadow" archetype).—M. E. Morse (Baltimore).

295. Krauss, P. *Zur Psychotherapie paranoiden Entwicklungen und Reaktionen.* (Psychotherapy for paranoid developments and reactions.) *Nervenarzt*, 1937, 10, 464.—P. L. Krieger (Leipzig/Munich).

296. Lahdensuu, S. *Mongolismus bei einem der Zwillinge sowie ein Fall mit 2 mongoloiden Kindern in derselben Familie.* (Mongolism in one member of a pair of twins, together with a report of a case of two mongolian children in the same family.) *Msschr. Kinderheilk.*, 1937, 71, 14-21.—A detailed account of the comparative development of a pair of unlike-sex twins, a normal girl and a mongolian boy, together with a summary of the literature on mongolism in twins. Of 74 reported pairs, 8 are said to be monozygotic and both mongolian; 28 of unlike sex with one member of the pair mongolian; 18 dizygotic like-sex with 17 cases in which only one was mongolian and one in which both were affected. In the remaining cases the type of twinning was not reported, but in 4 of 20 pairs both twins were mongols. There is also a brief account of two cases of mongolism occurring in the same family, with an interval of 11 years between the births.—F. L. Goodenough (Minnesota).

297. Lasch, G. *Zur Differentialdiagnose des nichtsprechenden Kindes.* (Differential diagnosis of a child who could not talk.) *Arch. Kinderheilk.*, 1936, 108, 78-94.—An account of the means by which a diagnosis of psychical deafness was arrived at in the case of a child of two and three-fourths years who was unable to talk, together with a description of the training procedures that were found to bring about improvement.—F. L. Goodenough (Minnesota).

298. Leroy, A., & Clémens, P. *Syndrome catatonique expérimental produit par le cardiazol.* (Experimental catatonic syndrome produced by cardiazol.) *J. belge Neurol. Psychiat.*, 1937, 37, 485-498.—The authors discuss experiments carried

on by a number of investigators on the production of catatonic states with various drugs, and report their own experiments with cardiazol. It was possible to produce epileptiform attacks in mice preceded, accompanied and followed by various characteristics of the syndrome of motor catatonia. The individual reactions to the drug were found to be variable. The experimental syndrome produced was similar in quality to that described under the name of "insulin catalepsy" and to that which has been produced by the authors with bulbo-capnine, coli bacillus and other toxins. This experimental catatonia seems to resemble the clinical catatonic syndrome in certain aspects. A bibliography of 22 titles is given.—H. Syz (Cornell).

299. Ley, A. *Produit incestueux dans une famille comportant trois générations de débiles mentaux.* (Offspring resulting from incest in a family with three generations of mental deficiency.) *J. belge Neurol. Psychiat.*, 1937, 37, 504-508.—The author reports the case of a 9-year-old girl, the product of incestuous relations between father and daughter in a family where three generations were mentally deficient. The child is delicate and sexually precocious but otherwise more nearly normal than any other member of the family.—H. Syz (Cornell).

300. Lhermitte, J., Ducoste, M., & Bineau, —. *Syndrome bulbaire d'origine hémorragique. Distorsion de l'image de soi: hallucinose visuelle.* (A bulbar syndrome having a hemorrhagic origin. Distortion of the self image: visual hallucinosis.) *Rev. neurol.*, 1937, 67, 62-68.—A presentation of the case study of a subject afflicted with hematomia who exhibited very unusual phenomena, such as visual hallucinations and distortion of the patient's own body schema.—M. H. Piéron (Sorbonne).

301. Lindner, F. *Über die in der Ehwahl zum Ausdruck kommende Affinität bei Geisteskranken und Psychopathen.* (Preferences in psychotics and psychopaths which come to expression in mate selection.) Gunzenhausen: Tuffentsamer, 1937. Pp. 40.—R. R. Willoughby (Brown).

302. Luxenburger, H. *Zur Frage der Erbberatung in den Familien Schizophrener.* (The question of eugenic advice in families of schizophrenics.) *Med. Klin.*, 1936, Part 2, 1136.—The principles of eugenic advice in 21 possible relationships of an applicant with schizophrenics, psychopaths, etc., are discussed and brought together in an outline.—P. L. Krieger (Leipzig/Munich).

303. Marinesco, G., Jonesco, J. M., Sitesti, —, & Copelman, L. *Le réflexe psycho-galvanique chez les parkinsoniens postencéphalitiques.* (The psychogalvanic reflex in patients with postencephalitic Parkinson's disease.) *Rev. neurol.*, 1937, 67, 98-100.—Patients with postencephalitic Parkinson's disease exhibit a very high initial resistance. Psychological stimulation by words having an affective content produces only slight deviations. Bibliography of 12 titles.—M. H. Piéron (Sorbonne).

304. Markey, O. B. The emotional factor in chorea. *Ohio St. med. J.*, 1936, 32, 36 ff.—R. R. Willoughby (Brown).
305. Marquis, D. G. Vasomotor responses and emotional over-reaction in patients with thalamic syndrome. *Psychol. Bull.*, 1937, 34, 536-537.—Abstract.—R. H. Brown (Clark).
306. Mayer-Gross, W., & Guttmann, E. Schema for the examination of organic cases. *J. ment. Sci.*, 1937, 83, 440-451.—As a supplement to a routine neurological and psychiatric examination, a series of tests is presented to cover the fields of mood, orientation, attention and adaptability, memory, use of numbers, speech, visual and related functions, auditory perception, tactile perception and "body image," and motility. The tests are not standardized, and no scoring system is given; they are intended to show the functional impairment accompanying diagnosed brain injury, and the fact of passing is less important than the manner of it.—C. J. Herrick (Pennsylvania).
307. McGregor, H. G. Enuresis in children. *Brit. med. J.*, 1937, Part 1, 1061-1063.—D. J. Ingle (Mayo Foundation).
308. Meinertz, J. Genie, Irrsinn und Ruhm. (Genius, insanity and fame.) *Zbl. Psychotherap.*, 1937, 10, 45-49.—Remarks on Lange-Eichbaum's book of the same title. Meinertz disagrees with the author's main theses that geniuses present psychopathic traits to an extraordinary degree, and that genius as such is a fiction, a purely sociological phenomenon. No cultural advance would be possible without abnormal traits in the leaders. In this sense, all culture is bionegative. What civilization gives with one hand she takes away with the other, through violent or quiet extinction of the biologically valuable (war, dying out of highly developed stocks). But perhaps bionegative values, obtained at the cost of "life," are really the most important for man. Persons showing bionegative traits are unjustly overwhelmed with depreciative epithets, moral and psychological, without indication of the category of values. Whether there is such a thing as genius per se is the old dispute about universals.—M. E. Morse (Baltimore).
309. Meinertz, J. Die problematische Wissenschaftsstruktur der Grundlagen seelischer Krankenbehandlung. (Problems of the scientific structure of the bases of psychotherapy.) *Zbl. Psychotherap.*, 1937, 10, 104-128.—Meinertz's theme is that the scientific method which separates subject and object is insufficient for psychotherapy and should be replaced by existential ontology. He discusses irrational experience as the foundation and vitalizer of ideational thought, and restoration of the organic unity, for which the neurotic longs, on a scientific basis. The value problem is the nucleus of psychotherapy. The organic unity of physician-patient, irradiated by creative irrationality, is the only adequate method for studying psychic processes, and is no less "scientific" than the subject-object relation. Psychology stands between two connected spheres—existential communication (psychotherapy) and rational objective knowledge. The central problem of psychology is the rooting of knowledge in total existence. Both feeling and scientific knowledge spring from the creative unconscious, but while knowledge changes, feeling remains eternally the same. The dialectic between feeling and knowledge in psychotherapy is making the unconscious conscious.—M. E. Morse (Baltimore).
310. Moniz, E., & Furtado, D. Essais de traitement de la schizophrénie par la leucotomie préfrontale. (An essay on the treatment of schizophrenia by prefrontal leucotomy.) *Ann. méd.-psychol.*, 1937, 95, Part 2, 298-309.—19 cases of schizophrenia were selected for treatment by prefrontal leucotomy. Of those treated, two responded with apparently complete cure and three others with partial remission. The conclusions are drawn that the procedure may be employed successfully in some cases and is contra-indicated in those showing mental deterioration and in those in whom the disorder is of long standing.—M. Newburger (Cincinnati).
311. Moreno, J. L. Inter-personal therapy and the psychopathology of inter-personal relations. *Sociometry*, 1937, 1, 9-76.—Two forms of psychotherapy are described, based on the recognition of the significance of inter-personal relations in therapy. The first technique, that of the "auxiliary ego," refers to the physician's adopting the views of the patient, and thoroughly and genuinely identifying himself with the patient. "Leads" come from the patient. In a case described, the physician successively serves as "auxiliary" to three members of a "triangular neurosis," i.e., disturbed functioning involving three persons. The auxiliary ego aids in understanding the case and in preparation of one or another member of the group for spontaneous action with the others. The spontaneous working out of personal difficulties is aided by the second technique, the "psychodrama," which is employed for analysis and training. The patient is urged to act out as spontaneously as possible situations representing himself and others, with the assistance of "auxiliary egos," and later, perhaps, members of his family, etc. Specific techniques are detailed, along with illustrative case material. It is urged that because of different "tele-relationships" the patient-psychiatrist relation is complex and not every psychiatrist will do for every patient. Transference is regarded as a special psychopathological aspect of tele-relation in general.—L. J. Stone (Sarah Lawrence College).
312. Müller-Hegemann, D. Ungewöhnliches Symptombild bei einer Commotionspsychose. (An unusual symptom picture in a concussion psychosis.) Berlin: Pfau, 1937. Pp. 16.—R. R. Willoughby (Brown).
313. Nestele, A. Schwererziehbarkeit und Psychopathie. (Incorrigibility and psychopathy.) *Zbl. Jugendr. Jugendwohlf.*, 1937, 28, 450-460.—The study arose from the work on 245 dependent pupils of Bad, who were problem children though of sound

heritage. It describes principally, from the viewpoint of pedagogical psychology, the nature of the cheerless, discouraged, harmlessly vain, and (passively or actively) impulsive psychopaths.—P. L. Krieger (Leipzig/Munich).

314. Page, J., & Landis, C. Cultural influences in psychopathology. *Psychol. Bull.*, 1937, 34, 524.—Abstract.—R. H. Brown (Clark).

315. Pentreath, E. U. H., & Dax, E. Mental observation wards; a discussion of their work and its objects. *J. ment. Sci.*, 1937, 83, 347-365.—The authors give a critical discussion of the observation ward in mental hospitals under the supervision of the London County Council. Clinical data from a ward handling 2.5% of all rate-aided cases are presented. Stress is laid on administrative, medico-legal, and sociological considerations.—C. J. Herrick (Pennsylvania).

316. Pisk, G. Zur Frage der Pseudohalluzinationen bei der Schizophrenie und ihrer Beziehungen zur eidetischen Anlage. (The question of pseudohallucinations accompanying schizophrenia and their relations to eidetic capacity.) *Mtschr. Psychiat. Neurol.*, 1935, 92, 150.—A girl with pronounced eidetic experiences also suffered from pathological pseudohallucinations. The latter did not appear at a certain point in relation to the patient, but were observed beside her and behind her back. They were felt as troublesome interferences with her thinking and as compulsion phenomena. The hallucinations were both visual and auditory. Later there were added compulsive laughing and crying, leading to conditions of pronounced excitation and ending in a typical catatonic state of confusion. Hysterical and schizophrenic traits were present, according to the Rorschach test.—P. L. Krieger (Leipzig/Munich).

317. Rouart, J. Du rôle de l'onirisme dans les psychoses de type paranoïaque et maniaque-dépressif. (The role of onirism in psychoses of the paranoiac and manic-depressive type.) *Evolut. psychiat.*, 1936, No. 4, 61-93.—The author studies oniric phenomena in paranoiac and manic-depressive cases who had retained their intellectual functions to the extent that they had not lost contact with the external world and were still capable of objective awareness, but who were not able to free themselves from their oniric experiences. These oniric phenomena were so incorporated into the psychological life of these patients that the author thinks they might be used as an element in defining a special type of psychosis.—G. Goldman (Sorbonne).

318. Saar, H. Pubertas praecox bei Gliom des Zwischenhirnes. (Puberty praecox from glioma of the midbrain.) *Frankfurt. Z. Path.*, 1937, 50, 451.—P. L. Krieger (Leipzig/Munich).

319. Sarbo, A. v. Über psychotische Zustände bei Nervensyphilis. (Concerning psychotic conditions in neurosyphilis.) *Arch. Psychiat. Nervenkr.*, 1936, 105, 304.—P. L. Krieger (Leipzig/Munich).

320. Scheid, K. F. Die allgemeine Psychopathologie im Jahre 1936. (General psychopathology in

1936.) *Fortschr. Neurol. Psychiat.*, 1937, 9, 373-379.—This brief article reviews publications in psychopathology in general. The investigations discussed may be classified under the headings: types of experience, including sensation and perception, ideas and thinking, feeling, drive and will; fundamental properties of experience, including self-awareness, temporal consciousness, thought; the background of experience, including consciousness, intelligence and personality. In each field the articles are mentioned briefly. There have been no recent publications on the pathology of attention. There is a bibliography.—D. S. Oberlin (Delaware State Hospital).

321. Schmidt, E. Encephalographische Befunde bei traumatischen Epilepsien. (Encephalographic findings in traumatic epilepsy.) Bremen: Schmidt, 1936. Pp. 35.—R. R. Willoughby (Brown).

322. Selling, L. S. A suggestion relative to classifying nervous and mental diseases. *Psychol. Rev.*, 1937, 17, 217-226.—A scheme for classifying nervous and mental diseases is offered by the author according to the four general formal divisions: (1) etiology, (2) functional syndromes, (3) structural representation, (4) prognosis. Three rules for dividing the categories within any classification are given and all seem to have been violated in past classifications.—P. S. de Q. Cabot (Simmons).

323. Sivadon, P. Phénomènes autoscopiques au cours de la grippe. (Autoscopic phenomena during influenza.) *Ann. méd.-psychol.*, 1937, 95, Part 2, 215-220.—Nervous manifestations during influenza are not uncommon. Usually transitory stages appear in which the patient suffers from anxiety or phobia, and at times he is unable to identify objects and persons familiar to him. On rare occasions cases have been described in which autoscopia has been present during influenza. The author discusses two such cases in which this unusual pathological condition was exhibited. He shows that in one instance false sensations are present which closely resemble the hallucinations of schizophrenia. In the other, the false sensations appear as a passing dissociation of a far less abnormal nature.—M. Newburger (Cincinnati).

324. Slater, E. The inheritance of mental disorder. *Eugen. Rev.*, 1937, 28, 277-284.—This is a review of recent European work in several categories of mental disorder. The concept of a polymorphous inheritance for Huntington's chorea is definitely discarded. Given a long enough life, every parent of a victim will be found to have had not merely a related condition but the actual disease itself, which is due to a single mutant autosomal gene. Incomplete manifestation accounts for some shortage of expected cases. Disturbances of movement have been found among children of victims, which may serve in time as an advance diagnostic symptom. Evidence suggests that schizophrenia is a single biological entity, transmitted as a simple recessive. Differences in manifestation are attributable to differences in internal environment, while a series

of head-injury cases, coupled with very low family incidence of schizophrenia, supports the view of the importance of the genotypic milieu in favoring the appearance of the disease. An effect upon schizophrenia of tuberculosis seems clear, although the converse does not. Epilepsy has been studied by twin research, the age of onset in one form at least being largely dependent on an hereditary factor. Two types of psychopathic personality, obsessional and hysterical, show a high sibling incidence of personality disorders or abnormalities. Criminal-twin researches of recent date modify Lange's earlier conclusions on crime and destiny. Recidivists show almost complete twin concordance, while there is rather high discordance for the situational criminal among uni-ovular twins.—G. C. Schwesinger (American Museum of Natural History).

325. Smith, B. A. The education and supervision of mental defectives. *J. crim. Law Criminol.*, 1937, 28, 210-219.—Recommendations for the care of mentally defective children are presented with a view toward lessening the likelihood of later criminal acts.—L. Ackerson (Illinois Institute for Juvenile Research).

326. Smith, G. M. A phobia originating before the age of three cured with the aid of hypnotic recall. *Psychol. Bull.*, 1937, 34, 521-522.—Abstract.—R. H. Brown (Clark).

327. Starr, A. S. The significance of qualifying factors in the diagnosis of borderline mentality. *Train. Sch. Bull.*, 1937, 34, 113-118.—We should study mentally defective persons with reference to their own group rather than as subnormals. We need to study and record in some way their possibilities, not merely their negative deviations on tests of reading and arithmetic. Many fail not because of their limitations alone, but because society demands the impossible of them. Boys and girls unable to read well who have school record captions of "higher moron" may adjust to a job after school which gives success and satisfaction. To be of practical value in any personality adjustment, a diagnosis needs to record at least the findings most significant for the general mental state. An interpreting diagnosis presents the most nearly accurate picture of the individual's mental condition.—E. M. Achilles (New York City).

328. Stefan, H. Zur Frage der exogenen Verursachung von Psychosen. (The question of the exogenous causation of psychoses.) *Allg. Z. Psychiat.*, 1937, 105, 299.—The origin of psychoses lies in the functional mind-body relationship. It is not justifiable to consider the brain an independent organ, by itself primarily responsible for mental disturbances. The brain-stem is older than the cortex, and according to Küppers, Reichard and Kleist the essential mental attributes are located there. But even the brain-stem is not the source of mental energy, which is derived from the soma. The system which expresses itself in the unity of the mind has three phases: soma, brain-stem, cortex. The mental apparatus is functionally enervated by the

soma. The brain-stem connects the energy needs of the psychophysical cortical functions with the energy sources of the soma.—P. L. Krieger (Leipzig/Munich).

329. Sullivan, E. B. Opportunities for research in a medical-psychological service center. *Psychol. Bull.*, 1937, 34, 553-554.—Abstract.—R. H. Brown (Clark).

330. Szeke, A. Schlafstörungen und Schlaftypen bei Nerven- und Geisteskranken und deren Beeinflussbarkeit durch Arzneimittel. (Sleep disturbances and types of sleep of neurotics and psychopaths and their susceptibility to drugs.) *Mtschr. Psychiat. Neurol.*, 1937, 96, No. 3/4.—Sleep disturbances are caused by a variety of factors and vary in duration and type. Hypersomnia and narcoleptic attacks occur in connection with neuroplastic disorders of the nervous system, when an infection or a growth has damaged the gray matter of the midbrain. In epidemic encephalitis, sleepiness and sleeplessness may occur simultaneously. The disturbances connected with tumors may take various forms. It cannot be decided whether the disturbances of the vegetative centers are caused by an inflammation alone or by a secondary cause, such as edema or alcoholic excesses. Melancholic, depressed and hysterical patients find especially their presleep disturbed, while schizophrenes and paralytics may experience a disturbance of either sleep or presleep. Conditions of mania and amentia usually involve an almost complete absence of sleep. The effects of different sedatives on each condition are discussed. Normal persons also have an individual waking-sleeping curve which corresponds to their physique and glandular condition.—P. L. Krieger (Leipzig/Munich).

331. Venn, G. Psychogene Störungen auf dem Gebiete der Herz- und Kreislauferkrankungen und ihre Behandlung im Badeort. (Psychogenic disturbances of the heart and circulation and their hydrotherapy.) *Psychiat.-neurol. Wschr.*, 1935, No. 20, pp. 6.—R. R. Willoughby (Brown).

332. Williams, E. H., & Wright, C. A. Some medical inaccuracies in court. *Med. Rec., N. Y.*, 246, 346-349.—Discussion with illustrative case material is given of some of the difficulties encountered in the giving of medico-legal opinions and testimony.—M. H. Erickson (Eloise Hospital).

333. Wootton, L. H., & Minski, L. "Temporary" treatment: an analysis of thirty cases. *J. ment. Sci.*, 1937, 83, 367-371.—Presenting one hospital's largely favorable experience with Section 5 of the British Mental Treatment Act of 1930.—C. J. Herrick (Pennsylvania).

334. Yde, A. Lilleputhallucinationer. (Lilliputian hallucinations.) *Hospitalstidende*, 1937, 80, 1004-1011.—Following a general history and discussion of Lilliputian hallucinations, the writer relates in detail the case history of a 44-year-old unmarried woman schizophrenia patient who persistently had such hallucinations from the age of 42.

Bibliography.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

[See also abstracts 2, 37, 40, 62, 77, 168, 336, 337, 345, 357, 408, 416, 432, 465, 466, 503, 512, 518.]

PERSONALITY AND CHARACTER

335. Asch, S. E., Block, H., & Hertzman, M. The organization of attitudes. *Psychol. Bull.*, 1937, 34, 528-529.—Abstract.—*R. H. Brown* (Clark).

336. Booth, G. C., & Klopfer, B. Personality studies in chronic arthritis. *Rorschach Res. Exch.*, 1936-1937, 1, 40-49.—The Rorschach test was administered to 30 patients suffering from chronic arthritis in an attempt to demonstrate a fundamental similarity in the personality make-up of arthritic patients. Among their conclusions the authors state that "the personality is so constituted that conditions easily arise which produce some kind of psychological immobilization apparently corresponding to the physical result of the arthritic process."—*M. Keller* (Brown).

337. Booth, G. C., Klopfer, B., & Stein-Lewinson, T. Material for a comparative case study of a chronic arthritis personality. *Rorschach Res. Exch.*, 1936-1937, 1, 49-55.—The material presented consists of a psychiatric report, a Rorschach interpretation, and a graphological analysis of a single arthritic patient. The conclusions given in each part of the case study were arrived at independently of the others. A comparison of the results and the theoretical inferences from the procedures involved are to be discussed in a later issue.—*M. Keller* (Brown).

338. Dudycha, G. J. Sex differences in punctuality. *J. soc. Psychol.*, 1937, 8, 355-363.—Men tend to be, on the whole, more punctual than women; although about the same percentage of women as men are found in the group arriving early, a significantly larger percentage of women are in the late group. Women are more variable in their punctuality; they also seem to show more trait generality than men. Neither sex shows a significant association between punctuality and academic grades.—*E. D. Hunt* (Brown).

339. Eisenberg, P. Factors related to feeling of dominance. *Psychol. Bull.*, 1937, 34, 527-528.—Abstract.—*R. H. Brown* (Clark).

340. Frenkel, E., & Weisskopf, E. Wunsch und Pflicht im Aufbau des menschlichen Lebens. (Desire and obligation in the structure of human life.) Vienna: Gerold, 1937. Pp. 163.—An analysis of the way in which 65 subjects between the ages of 17 and 80 experienced desires and obligations. Until 60 obligations gain in number over desires, which predominate in youth and after 60. The contents of both change from a personal to a broader scope. Those connected with one's own personality and one's work change more frequently than others. Attempts to reach a personal ideal are replaced by efforts to idealize the product of one's labors. Between the ages of 30 and 45 subjects were most similar in the obligations experienced and varied

most in their desires. Interests which first appeared as obligations were later intensified into desires. Younger people may be unable to combine the two experiences, achieve a working arrangement by ignoring obligations, or subjugate obligations to desires. Most older people combine the two by desiring what is felt to be an obligation. It is possible to express an individual's "psychological age" in terms of a "psychological quotient" based on the stage of development which his desires and obligations have reached.—*H. Beaumont* (Kentucky).

341. Günther, J. Zum Gesicht des deutschen Denkers. (The faces of German thinkers.) *Disch. Rundschau*, 1936, 62, 135-143.—The author shows the facial characteristics of Kant, Fichte, Schopenhauer, Nietzsche und Spengler with the help of 6 pictures, and points out their facial characteristics in their philosophies.—*P. L. Krieger* (Leipzig/Munich).

342. Harrasser, A. Konstitution und Rasse, 1933, 1934, 1935, 1936. (Constitution and race, 1933, 1934, 1935, 1936.) *Fortschr. Neurol. Psychiat.*, 1937, 9, 411-428.—This is the first of a series of articles reviewing four years of publications on the subjects of constitution and race. This particular section deals only with various aspects of constitution. Discussions concern constitutional types, physiological and biological researches, studies of endocrine glands, indices and measurements (anthropometric), and the photographic method of discriminating constitutional types. There is also material on psychophysical relationships, bodily training, environment, puberty, and fertility as related to constitution.—*D. S. Oberlin* (Delaware State Hospital).

343. Hoyland, J. S. That inferiority feeling. London: Allen & Unwin, 1937. Pp. 256. 7/6 net.—This is a popular book based largely upon the psychological views of Adler. With many illustrations it deals first with the causes and conditions of inferiority feelings and second with the cure for them. There is a fairly strong religious theme running through the book and an attempt to link up the teaching imparted with many current problems of social life.—*F. C. Bartlett* (Cambridge, England).

344. Huru, T. [A test for extraversion-introversion of neurotics.] *Jap. J. exp. Psychol.*, 1937, 4, 13-31.—65 male and 5 female neurotics 19 to 50 years old (average 26.5) were tested by Awaji's version test, to determine whether original version undergoes any alteration after recovery from illness in the hospital. The author found that introvertive trends, which are very conspicuous while the patients are suffering from disease, approach normal version afterward, though some symptoms were shown to be affected by the training under special environmental conditions. This effect is more remarkable in the social aspects of version than in its private aspects.—*R. Kuroda* (Keijo).

345. Janet, P. Les troubles de la personnalité sociale. (Disturbances of the social personality.) *Ann. méd.-psychol.*, 1937, 95, Part 2, 149-200.—Many writers have attempted to describe the relationship which exists between society and the

personality of the individual. Janet believes that environment and social experience exert a far greater influence than is generally understood. Because others have failed to interpret the problem satisfactorily, he offers a more precise analysis in which he presents a discussion of the following topics: (1) The problem of the personality and the social delusions. (2) The two personalities: the subject himself and the social personality. (3) The first stages of the social personality. (4) The confusion of the personalities in emotional beliefs. (5) The re-appearance of the social acts.—*M. Newburger* (Cincinnati).

346. Klopfer, B., & Sender, S. A system of refined scoring symbols. *Rorschach Res. Exch.*, 1936-1937, 1, 19-22.—A complete refined scoring system for the Rorschach test has emerged from the experimental work of six research groups in New York City. This article is concerned with a description of the symbols used in this scoring system and their interpretative value.—*M. Keller* (Brown).

347. Kroll, A., & Dunlap, J. W. The arrangement of statements in an attitude scale. *Psychol. Bull.*, 1937, 34, 544-545.—Abstract.—*R. J. Brown* (Clark).

348. Langlie, T. A. Personality ratings: I. Reliability of teachers' ratings. *J. genet. Psychol.*, 1937, 50, 339-359.—In order to measure the reliability of ratings as a method of measuring characteristics of personality, a detailed statistical study was made of teachers' ratings of students in three large high schools. No special training or instructions were given the raters, since usual (non-experimental) conditions were desired. The data are presented under the following topics: (1) normality of distributions of ratings as shown by presence or absence of skewing, (2) spread of ratings, (3) variations in rating standards, (4) variations in rating tendencies from one year to another, (5) the factor of sex in conditioning ratings, (6) the effect of "correcting" for variability of teachers' rating tendencies, (7) "halo" as a factor. The results are consistent in indicating that the ratings lack high reliability.—*E. Heibredner* (Wellesley).

349. Langlie, T. A. Personality ratings: II. Validity of teachers' ratings in predicting scholastic achievement. *J. genet. Psychol.*, 1937, 50, 401-426.—Ratings previously analyzed to determine reliability (see preceding abstract) were analyzed in this study to determine validity. The following methods were used to secure indications of validity: (1) determining the amount of agreement between individual raters, (2) comparing ratings on "ability to learn" with "college ability test" scores, (3) comparing ratings on all traits, and particularly ratings on "capacity for college work," with subsequent scholastic performance in college courses. The first method gave low correlations between different raters, the second and third gave fair correlations between the variables studied. A discussion of the results is given.—*E. Heibredner* (Wellesley).

350. Lorge, I. Gen-like: halo or reality. *Psychol. Bull.*, 1937, 34, 545-546.—Abstract.—*R. H. Brown* (Clark).

351. Löwenstein, O. Der psychische Restitutions-effekt. (The mental restitution effect.) Basel: Schwabe, 1937. Pp. 92. Fr. 8.—*P. L. Krieger* (Leipzig/Munich).

352. Maroske, F. Untersuchungen über Zusammenhänge zwischen Rothaarigkeit und Charakter. (Investigations on the relationships between red-hairedness and character.) Greifswald: Adler, 1937. Pp. 39.—*R. R. Willoughby* (Brown).

353. Marston, W. M. Try living. New York: Crowell, 1937. Pp. 228. \$1.75.—A psychologist presents, in popular, practical style, his philosophy for success—that it can be achieved only by enjoying life.—*R. R. Willoughby* (Brown).

354. Maslow, A. H. Dominance-feeling. *Psychol. Bull.*, 1937, 34, 526-527.—Abstract.—*R. H. Brown* (Clark).

355. Nadel, A. B. Rorschach personality studies before and after operation for brain tumor. *Psychol. Bull.*, 1937, 34, 523-524.—Abstract.—*R. H. Brown* (Clark).

356. Piotrowski, Z. The fallacy of measuring personality by the same methods as intelligence. *Psychol. Bull.*, 1937, 34, 546-547.—Abstract.—*R. H. Brown* (Clark).

357. Piotrowski, Z. On the Rorschach method and its application in organic disturbances of the central nervous system. *Rorschach Res. Exch.*, 1936-1937, 1, 23-40.—33 Rorschach records were obtained from 18 organic cases with involvement of the cerebral cortex, 10 cases with non-cerebral disturbances of the central nervous system, and 5 cases of conversion hysteria. 10 Rorschach signs of abnormality were studied with the idea of differentiating the cortical-subcortical organic group from the non-cerebral organic and conversion hysteria groups. It was found that all of the cortical-subcortical patients showed more of the abnormal signs than any patient from the other two groups. The author reports that there was some experimental evidence pointing to the possibility of illustrating, by the Rorschach method, "a general law of mental deviation which would imply quantitative but not qualitative differences between the cortical-subcortical and other groups."—*M. Keller* (Brown).

358. Rothacker, E. Die Schichten der Persönlichkeit. (The levels of personality.) Leipzig: Barth, 1937. Pp. 107. RM. 7.20.—*R. R. Willoughby* (Brown).

359. Schultz, J. H. Das autogene Training (konzentrierte Selbstentspannung). (Autogenous training; release of tension by concentration.) (3rd ed.) Leipzig: Thieme, 1937. Pp. 311. RM. 18.60.—*R. R. Willoughby* (Brown).

360. Seabury, D. The art of selfishness. New York: Messner, 1937. Pp. 321. \$2.50.—Formulas for happy living. Bibliography.—*R. R. Willoughby* (Brown).

361. Seitz, H. *Erkenntnis und Bekenntnis in Charakterologie und Psychologie.* (Knowledge and belief in characterology and psychology.) Leipzig: Moltzen, 1936. Pp. 132.—R. R. Willoughby (Brown).

362. Sells, S. B. Gullibility in relation to intelligence, experience, and training. *Psychol. Bull.*, 1937, 34, 525-526.—Abstract.—R. H. Brown (Clark).

363. Sender, S., & Klopfer, B. Application of the Rorschach test to child behavior problems as facilitated by a refinement of the scoring method. *Rorschach Res. Exch.*, 1936-1937, 1, 5-17.—This paper attempts to show that it is possible to apply the Rorschach personality test to children in spite of the fact that their personality is still in the process of development. The method is based on a refinement of the scoring method and the evaluation of a single child's reaction to the Rorschach in a more qualitative way than any hitherto employed. As an illustration of the refinement of scoring method the "mode of comprehension" (*Erfassungstyp*) of a single case is described in detail.—M. Keller (Brown).

364. Spearman, C. *La personnalité volontaire.* (Voluntary personality.) *Biotypologie*, 1936, 4, 153-160.—The author defines voluntary personality as that which distinguishes one person from another with respect to what he wills and feels. Spearman gives a historical summary of studies made on personality previous to his own. He points out two main factors: factor *W* which determines self-mastery, and factor *P* which denotes the degree of mental inertia present. He describes a study made on problem children.—M. H. Piéron (Sorbonne).

365. Stoller, W. *Wahlentscheidung und nicht realisierte Determination.* (Decision and thwarted objectives.) *Untersuch. Psychol. Phil.*, 1936, 11.—The motivating power of thwarted objectives is almost always 100% in cyclothymes, while schizothymes fail to be motivated in this manner. This is due to the fact that the latter, because of their introverted tendencies, are less willing to be motivated by tasks not conceived by themselves. When it is possible to change this situation by pointing out the value of the volitional act for the development of personality and by binding the individual more closely to the volitional objectives (for instance, by arousing his desire for self-assertion), schizothymes may be motivated by thwarted objectives. This is true because in such cases the ego plays a part, which may even be dominant, in the volitional experience when the individual assumes the task.—P. L. Krieger (Leipzig/Munich).

366. Vernon, P. E. *Rorschach bibliography No. III.* *Rorschach Res. Exch.*, 1936-1937, 1, 89-93.—33 new titles are added to the 148 references which were included in articles published by Vernon in 1933 and 1935.—M. Keller (Brown).

367. Young, R. A. *Perspective and poise in practice.* *Brit. med. J.*, 1937, Part 1, 1057-1060.—D. J. Ingle (Mayo Foundation).

368. Zschuppe, E. *Lebensideale und ihr Einbau in den Charakter.* (Life ideals and their incorpora-

tion in character.) Bleicherode: Nieft, 1937. Pp. 77. RM. 3.40.—R. R. Willoughby (Brown).

369. Zubin, J. *The determination of response patterns in personality adjustment inventories.* *J. educ. Psychol.*, 1937, 28, 401-413.—The usual additive method of determining scores on personality adjustment inventories may be criticized because the items are not equivalent and the total score fails to reveal patterns of response. The purpose of this study was to determine whether or not patterns exist in the responses of normal and abnormal S's to such inventories. 632 items were administered to matched groups of normal and abnormal S's, and 140 items were found to be diagnostic. Using only the diagnostic items, a search was then made for constellations of responses to groups of three items (triads). The groups of items to be studied for their diagnostic patterning were selected on logical or symptomatological grounds. It was found that such patterns of responses to three items do exist, and that abnormal individuals exhibit some patterns peculiar to themselves as well as some of the normal patterns. Differences in the frequency of abnormal and normal patterns occur between schizophrenics, manic-depressives, psychoneurotics, and organic psychotics. The psychoneurotics exhibit more abnormal patterns and fewer normal patterns than do any of the others. The method of analysis must be improved before it can be used as a clinical tool.—A. W. Melton (Missouri).

[See also abstracts 33, 112, 210, 294, 344, 383, 393, 395, 455, 461, 526, 530, 566, 581, 583.]

GENERAL SOCIAL PROCESSES

(incl. Esthetics)

370. Alcorn, D. E. *New Testament psychology.* *Brit. J. med. Psychol.*, 1937, 16, 270-280.—New Testament authors considered man's psychological structure to consist of body (soma), soul (psyche), and spirit (pneuma). Psychoanalytical terminology substitutes for these the id, the ego, and the super-ego. Other New Testament parallels with modern psychiatric and psychoanalytic doctrines include: lust, comparable to libido; identification with an ideal (Christ); mental conflict (flesh vs. spirit); "putting off" of old desires comparable to repression; unconscious motivation assumed in the "old man" and "spirit."—E. R. Hilgard (Stanford).

371. Arnold, T. W. *The folklore of capitalism.* New Haven: Yale Univ. Press, 1937. Pp. vii + 400. \$3.00.—The ideology of all social systems, including our own, is dominated by group ideals derived from many conflicting sources and transmitted from generation to generation with a rate of change much slower than that of social needs and the mechanisms available for satisfying them. Such ideals are given formal embodiment in the "sciences" of law and economics, and on account of the emotional mechanisms sustaining them are often in conflict with each other and with objectives generally admitted to be desirable. As a result conflicting institutions

arise within the same field, a respectable one for the purpose of dramatizing the ideal and a non-respectable one for the purpose of attaining the practical objective involved. Extensive illustrations are drawn from current legal and economic events, and a final chapter formulates 24 principles of political functioning.—*R. R. Willoughby (Brown)*.

372. **Berger, W.** *Über Vokaltheorien.* (Vowel theories.) *Arch. ges. Phonet.*, 1937, 1, Part II, 150.—*P. L. Krieger (Leipzig/Munich)*.

373. **Berkeley-Hill, O.** *The erotic rights of women.* *Marriage Hyg.*, 1937, 4, 30-33.—"The erotic aptitudes of women can only be developed where the right atmosphere exists for them, and this can never be so long as man is permitted to enforce his ideal of female sexuality on the world."—*M. Keller (Brown)*.

374. **Berry, M. F.** *Twinning in stuttering families.* *Hum. Biol.*, 1937, 9, 328-346.—Twinning occurs more frequently in stuttering families than in non-stuttering families. The study includes 462 stutterers and 500 non-stutterers. In stuttering families containing both twins and single siblings, stuttering is more frequent among the twins. Left-handedness and stuttering are associated, likewise left-handedness and twinning; therefore a genic common denominator is postulated.—*O. W. Richards (Spencer Lens Company)*.

375. **Block, M.** *Zigeuner, ihr Leben und ihre Seele.* (Gypsies, their life and soul.) Leipzig: Bibl. Inst., 1936. Pp. 220. RM 5.80.—The inner life of gypsies in regard to sex and marriage is ruled by high ethical principles. Their criminality is directed almost always against non-gypsies, and is the expression of defective capacity for adaptation to the surrounding population.—*P. L. Krieger (Leipzig/Munich)*.

376. **Borkenau, F.** *Pareto.* New York: Wiley, 1936. Pp. 219. \$1.75.—The body of the book is an exposition of the main theories of the *Trattato*, dealing especially with the discussion of non-logical actions and the circulation of "élites." The main concepts are reduced to three: (1) "residues," or "groups of non-logical actions deriving from common underlying sentiments"; (2) "derivations," which are "simili-logical interpretations given to the actions really brought about by the operation of the residues"; and (3) the "élites," composed of the strongest, most successful, most active (not the best) personalities, "characterized by their complete dependence upon the support of the class whose protagonists they are." Borkenau compares Pareto's and Lenin's theories with respect to this latter group. Pareto explained social life as "the automatic and casual result of scores of non-logical actions, . . . standing side by side without intrinsic correlation, . . . [and] not open to any further explanation." The introductory biographical chapter discusses Pareto's personal relation to fascism and the concluding chapters on Bolshevism and fascism emphasize the political nature of the *Trattato*.—*M. A. Mook (Brown)*.

377. **Britt, S. H.** *The significance of the last will and testament.* *J. soc. Psychol.*, 1937, 8, 347-353.—A study of a sampling of wills probated in New York County revealed two tendencies: the tendency to preserve the family as a significant social unit, and the similarity in pattern of the wills.—*E. D. Hunt (Brown)*.

378. **Cannon, A.** *Testing the appreciation of style.* *Engl. J.*, 1937, 26, 648-654.—A University of Chicago test for matching prose style was used in this study. Paragraphs from the works of ten authors are arranged at random in each of two lists of selections, and these are to be identified as pairs. There were differences between authors in ease of identification. Bacon was most distinctive, Pepys was next, and the more difficult authors were Stevenson, Mencken and Swift.—*D. Bailey (Mt. Holyoke)*.

379. **Clark, C.** *Shakespeare and psychology.* London: Williams & Norgate, 1936. Pp. 192. 7/6 net.—The general plan of the book is to take some main topics, such as the tragedies, romance, the fool, heroines, crowds, national character, etc., and to show, largely by means of quotation, that Shakespeare anticipated much that can be said about them in the name of psychology. There is a brief bibliography.—*F. C. Bartlett (Cambridge, England)*.

380. **Coover, J. E.** *NoteScript and NoteTyping: their nature and economy.* *Psychol. Bull.*, 1937, 34, 563.—Abstract.—*R. H. Brown (Clark)*.

381. **Crider, B.** *The psychological approach to reading disabilities.* *Ohio St. med. J.*, 1936, 32, 434 ff.—*R. R. Willoughby (Brown)*.

382. **Criswell, J. H.** *Racial cleavage in negro-white groups.* *Sociometry*, 1937, 1, 81-89.—950 children in a Brooklyn, N. Y., public school, with a 75% negro population, were tested by Moreno's sociometric test and interview, to determine with which two classmates each would like to sit, and why. The white children were largely of Italian parentage. 30 classes from 9 grades were tested. The intelligence of the group was low average. The results indicate that sexual cleavage is far greater than that on racial lines. Further analysis was made within the boys' and girls' groups. In general, a decrease of inter-racial choices is found with increasing age; girls' groups show variable cleavage, colored girls withdrawing more; boys develop equal cleavage or groups where one group has more prestige; there is never complete cleavage. Some other findings: where whites are a very small minority their self-preference tends to be unusually high before and unusually low after reaching the 5th grade; white girls forming a small majority show increased self-preference; negro girls below 12 do not separate from the whites; it is probable that when whites reach a concentration of 58% negroes show a loss of self-preference. A tentative explanation of racial group formation is offered; it is to be checked by further studies.—*L. J. Stone (Sarah Lawrence College)*.

383. **Dodge, A. F.** *Relation of "social dominance" to general intelligence.* *J. educ. Psychol.*, 1937, 28, 387-390.—A previous study (*J. educ. Psychol.*, 1931,

- 28, 71-73) showed that experienced salespeople possessed "social dominance," as measured by the Bernreuter personality inventory, to a greater degree than experienced clerical workers. The social dominance scores of these people were correlated with scores on the Pressey senior classification, the O'Connor vocabulary test, and grade attainment in formal education. The highest r was .115, and the application of methods of factor analysis to the data supported the conclusion that the social dominance score "is either independent of or has only an low correlation with general intelligence."—A. W. Mellon (Missouri).
384. Doll, E. A. How old is Anne, socially? *Hygeia*, Chicago, 1937. Pp. 4.—This article is designed to aid in placing children on a social age scale by means of behavior observations. A specimen Vineland social maturity scale blank is printed which shows the normal performance of individuals of ages from one year to twenty-five and over.—F. A. Mote, Jr. (Brown).
385. DuBois, C. The wealth concept as an integrative factor in Tolowa-Tututni culture. In Lowie, R. H., *Essays in Anthropology presented to A. L. Kroeber*. Berkeley: Univ. California Press, 1936. Pp. 49-65.—Recently anthropologists have suggested characterizing cultures in terms of the emphasis of the total configuration. Actually cultures are never so completely integrated as to make such characterizations entirely accurate. In Tolowa-Tututni culture, in northwestern California, the wealth emphasis pervades law, ethics, marriage, the education of children, religion, and the maintenance of order in the village, but certain other aspects of life, such as war, girl's adolescence observances, land ownership, etc., are either untouched or unexploited by the wealth concept.—M. A. Mook (Brown).
386. Dudycha, G. J. An examination of the J-curve hypothesis based on punctuality distributions. *Sociometry*, 1937, 1, 144-154.—In an examination of F. H. Allport's suggestion that in institutional behavior, a J-curve is produced by a telic continuum, and a double J-curve by an empirical, non-telic continuum, the author presents three of Allport's curves on punctuality and six of his own. The latter were secured on punctuality at 8 o'clock classes, breakfast, appointments, extra-curricular activities, vesper services, and entertainments. All are examined to determine whether they are leptokurtic both by a graphic method and by a statistical method taken from Kelley. It is concluded that Allport's double-J-curve hypothesis "is hardly tenable." The distributions tend to be normal.—L. J. Stone (Sarah Lawrence College).
387. Eisenson, J. Some characteristics of the written speech of stutterers: I. *J. genet. Psychol.*, 1937, 50, 457-458.—15 undergraduate male stutterers each wrote for 15 minutes on a topic of general interest. The number of words written was taken as a measure of "talkativeness," the number of words crossed out as an indication of "verbal trial and error." The results indicate that in written speech stutterers are less talkative than normal speakers and more marked by verbal trial and error. These results suggest that the stutterer's difficulty may be due to inability to sustain coherent thought and to express such thought verbally. This difficulty is not present in free association as used in Meltzer's experiment, in which different results were obtained.—E. Heidebreder (Wellesley).
388. Eisenson, J., & Winslow, C. N. The perseverating tendency in stutterers. *Psychol. Bull.*, 1937, 34, 522-523.—Abstract.—R. H. Brown (Clark).
389. Elwin, V. A note on the theory and symbolism of dreams among the Baiga. *Brit. J. med. Psychol.*, 1937, 16, 237-254.—The Baiga live in remote villages all over the eastern spurs of the Satpura Mountains of Central India. They are little affected by civilization, and but slightly Hinduized. The Baiga enjoy a double experience of life, waking and dreaming, both accepted as true, but on different levels of reality. The manifest content of the dreams expresses and reinforces their culture. The small amount of sexual inhibition reduces the number of disguised and symbolic sexual dreams. The Oedipus complex does not represent their dominant family sentiment. Their most tormenting and readily remembered dreams are the nightmares of anxiety and hunger.—E. R. Hilgard (Stanford).
390. Farnsworth, P. R. Data on the chord-tone-resonance theory of vowels. *Psychol. Bull.*, 1937, 34, 564.—Abstract.—R. H. Brown (Clark).
391. Fochler-Hanke, G. Chikago in seinen rasischen und sozialen Spannungen. (Chicago in its racial and social tensions.) *Z. Erdkunde*, 1937, 5, 541-546.—P. L. Krieger (Leipzig/Munich).
392. Galli, E. L'estetica e i suoi problemi. (Esthetics and its problems.) *Coll. Studi Fil.*, 1936, 3, No. 12. Pp. viii + 391.—A comprehensive view of the field of esthetics, with a theoretical and philosophical rather than an experimental approach.—C. J. Herrick (Pennsylvania).
393. Goldenweiser, A. A. The individual, pattern, and involution in primitive society. In Lowie, R. H., *Essays in Anthropology presented to A. L. Kroeber*. Berkeley: Univ. California Press, 1936. Pp. 99-104.—The prescriptions of primitive culture patterns should not be taken too literally; individual variation is never completely lost. The pattern limits divagations, but they occur; within the limits individual taste has its sway. The range of primitive variation is narrower than ours, but the existence of primitive individuality should not be ignored and no longer surprises anthropologists, though they sometimes neglect it. "Involution" is the development which occurs within the pattern, consisting of recombinations, juxtapositions, and new permutations of relatively uniform elements.—M. A. Mook (Brown).
394. Gordon, R. D. A statistical mechanics for sociology. *Psychol. Bull.*, 1937, 34, 557.—Abstract.—R. H. Brown (Clark).
395. Gundlach, R. H. Emotional stability and political opinions as related to age and income.

Psychol. Bull., 1937, **34**, 554-555.—Abstract.—R. H. Brown (Clark).

396. Hahn, E. F. A compendium of some theories and therapies of stuttering. *Quart. J. Speech*, 1937, **23**, 378-396.—Several of the leading theories of stuttering and methods of therapy advised by their authors are briefly summarized. Eight such summaries have been edited and approved by the persons whose views are described. The theories include (1) psychological interpretations (Dunlap, Fletcher, Gifford), (2) neurological interpretations (Blumel, Greene, Travis, West), and (3) psychoanalytic interpretations (Blanton, Coriat). "Most of the theories need definite research to support their contentions."—W. H. Wilke (New York University).

397. Handy, E. S. C. Dreaming in relation to spirit kindred and sickness in Hawaii. In Lowie, R. H., *Essays in Anthropology Presented to A. L. Kroeber*. Berkeley: Univ. California Press, 1936. Pp. 119-127.—A discussion of the nature of dreams among native Hawaiians and of the necessity of interpreting them in accordance with native culture and symbolism; and a criticism of psychoanalytic interpretation based upon theories inconsistent with local native environmental and cultural context. Illustrations "demonstrate the need for caution in analyzing dreams of non-European peoples in terms of any symbolism, psychoanalytic or otherwise, other than that derived from and implicit in the native cultural heritage and local environment."—M. A. Mook (Brown).

398. Hansen, H. C. Scholastic achievement of Indian pupils. *J. genet. Psychol.*, 1937, **50**, 361-369.—Achievement tests were given to groups of Indian and white children enrolled in the same public schools and also to Indian boarding school students educated as segregated groups. No clear-cut difference in achievement was found between public and boarding school children of Indian blood. White children were definitely superior in general achievement to Indian children, showing more superiority to full-blood than to half-blood Indians. The marked variability of scores within the groups and the high percentage of overlapping of white scores by Indian scores is noted. It is also noted that the entire socio-racial pattern of influences is involved in the results and that the reality and relative weight of those factors which may be biologically innate remain undetermined.—E. Heidbreder (Wellesley).

399. Heinrich, J. C. The psychology of a suppressed people. London: Allen & Unwin, 1937. Pp. viii + 148.—This is a study of the behavior reactions of the Indian "untouchables" and of American negroes. The leading notion is taken over from Hamilton, and is that whenever an organism (or a social group) is unable to acquire relatively complete unresponsiveness to stimuli, direct responsiveness to which is for any reason disadvantageous, that organism or group will react indirectly and in general in a pathological manner. The various types of pathological reaction acquired by the Indian and negro populations dealt with are analyzed and fully

illustrated. A particular attempt is made to show how mission work in India may deal best with the resulting difficulties.—F. C. Bartlett (Cambridge, England).

400. Herskovits, M. J. Life in a Haitian valley. New York, London: Knopf, 1937. Pp. xvi + 350 + xix. \$4.00.—Part II describes "The Daily Round" of economic and social activity, and Part III "Haitian Religion," dealing especially with *vodun* (the "voodoo" of popular writers). Evidences of acculturation, i.e. the mutual influences of cultures in contact, are interspersed throughout the book, but are developed particularly in Parts I, "The Cultural Ancestry of the Haitian," and IV, "Haiti, a Cultural Mosaic," which are respectively historical and ethnological considerations of the problem. A short appendix, "Some Comments on Method," focuses attention upon sympathetic vs. "participant" observation in field work and the problems and methods peculiar to acculturation studies. The concluding chapter discusses the dynamics of cultural modification and the mental instability of the Haitian native. "Living on their nerves" or "thwarted psychic ease" is characteristic, and is explained as disturbance caused by the conflict of African and French cultural heritages. The theories of instability caused by life in the tropics and as exemplification of innate racial psychosis are examined and rejected. Other aspects of native behavior considered from the point of view of the relation of culture to personality are "socialized ambivalence," the incidence of and attitudes toward homosexuality, twins and suicide, and the phenomena of spirit possession associated with *vodun*. There are illustrations, a glossary of creole terms, an index, and a bibliography which includes all historical and scientific titles of importance.—M. A. Mook (Brown).

401. Jeans, J. H. Science and music. New York: Macmillan, 1937. Pp. 268. \$2.75.—Information in non-technical terms is given on the physics of music, on the effect of sound upon the hearer and on the making of sounds by the player.—R. R. Willoughby (Brown).

402. Jennings, H. Structure of leadership—development and sphere of influence. *Sociometry*, 1937, **1**, 99-143.—Leadership was studied in a population of several hundred girls at the N. Y. Training School for Girls by a sociometric technique, using as a criterion selection of associates for "eating at the same table." Each individual receiving 5 choices (20% of the individuals) was considered a "leader." Choices were repeated every 8 weeks over a period of 2 years, 7 months. Tables and sociometric charts present the shifting patterns of "leadership," isolation, etc. Among other findings it is noted that the number of social structures (number of isolates, leadership structures, etc.) tends to remain constant; leaders may be considered in several categories: occasional leaders, leaders with limited influence, momentary leaders with wide influence, leaders with broad and continued influence, and the "aristo-tele" leader, who leads by indirection;

the leader tends to have a wide sphere of influence (number of people who spontaneously recall her). Additional and supporting material is presented at length.—*L. J. Stone* (Sarah Lawrence College).

403. Jost, H. *Die sexuellen Nöte unserer Tage und ihre Forderung.* (The sexual needs of our day and their requirements.) Hamburg, Wien, Zürich: Advent-Verl., 1937. Pp. 15. RM. 0.30.—*R. R. Willoughby* (Brown).

404. Kantor, J. R. *Interbehavioral psychology and the social sciences.* *J. soc. Phil.*, 1937, 3, 39-53.—The thesis is developed that the problems and difficulties surrounding the study of social phenomena come from the persistence of dualistic traditions. If we could rid ourselves of the last vestiges of dualistic thinking social science could be on a level with physical science. Interbehavioral psychology (Kantor's system) may help us overcome dualism and develop an experimental social science.—*J. F. Brown* (Kansas).

405. Katz, D., & Cantril, H. *Public opinion polls.* *Sociometry*, 1937, 1, 155-179.—Straw votes have assumed great significance in the political scene, due to (1) their value to politicians in the conduct of a campaign, (2) their use as a propaganda device, (3) the common interest among people in the opinions of their fellows, (4) the common need to know about the future, and (5) the commercial gain in satisfying these needs." Polls are classified as using the incidental sample method (*Literary Digest*), weighted sample method (Institute of Public Opinion) and the psychological poll (*Fortune*). The 1936 results by the three methods are analyzed, and the errors of each are considered, with their reasons. The effects of such polls are considered in terms of their influence on popular thinking, their political influence, and their psychological contributions. Suggestions are made for the future use of such polls.—*L. J. Stone* (Sarah Lawrence College).

406. Koch, K. H. *Die Kinderzahlen der Arbeiter und Angestellten von Kieler Werften.* (Family size of dock laborers and employees in Kiel.) *Arch. Rass.- u. GesBiol.*, 1937, 31, 245-263.—A statistical survey of the families of 4303 dock employees in Kiel showed that they were unusually small in size. When they were arranged in order of the years in which the parents were married, these families showed a constant and sharp decline in birth rate, until an average of 1.2 children was reached for families of skilled laborers married in 1930. The greatest decrease occurred among unskilled workers. The proportion of children born during the first 5 years of marriage increased constantly, as did the number of childless families. Age differences between children were considerably greater in families whose parents were recently married. A remarkable finding was that families in which the first-born was conceived before marriage were markedly more fruitful than others.—*P. L. Krieger* (Leipzig/Munich).

407. Koenig, S. *The phenomenon of ethnocentrism.* *J. soc. Phil.*, 1937, 3, 59-68.—Ethno-

centrism (a term popularized by W. G. Sumner) is an exaggeration of the primordial syngenetic feeling, and constitutes a primary drive in the life of the social group similar to egoism in the life of the individual. From this standpoint both the socially maladaptive and the adaptive features of ethnocentric behavior are discussed.—*J. F. Brown* (Kansas).

408. Kraines, S. H. *A psychiatric analysis of the present day madness in the world.* *Science*, 1937, 86, 372-373.—The author analyzes the nations of the world as they are today as if they were psychiatric patients.—*F. A. Mole, Jr.* (Brown).

409. Lamp, C. J. *Can aptitude for specific musical instruments be determined?* *Yearb. Music Educ. nat. Conf.*, 1936, 246-250.—By a system of controlled exposures to brass, woodwind and string instruments Lamp has been able to salvage many people who would otherwise have been rated as unmusical.—*P. R. Farnsworth* (Stanford).

410. Lips, J. E. *The savage hits back.* New Haven: Yale, 1937. Pp. xxxi + 254. \$5.00.—This is a study of the way in which the primitive peoples of the world, in their arts, have represented the white man and his civilization. The native art makes clear that the white man has seemed ridiculous as well as powerful, absurd as well as strong, to primitive man. The author writes as far as possible from the native point of view, elucidating that point of view, with its various interests, grievances, timidities, and hostilities. Native reaction to white conquest, colonization and more casual contacts has varied, the artistic representations representing buffoonery, astonishment, censure, sometimes misunderstanding. Chapter 1, more general than the others, gives a short history of European expansion into native territories. Nine chapters, documented with 213 illustrations (from the author's collection of 650), show the native reaction to white soldiers, merchants, officials, teachers, missionaries, and the culture materials and ideas they bring with them. There are separate chapters on "The White Woman" and "The Chieftains (kings, queens, colonial governors) of the Whites." Malinowski, in an introduction, recommends the chapter on the missionary as "an interesting contribution to the psychology of a new religion in the process of being grafted on" native culture. Chapter 2 contains admonitions against comparing primitive art with that of children or the insane.—*M. A. Mook* (Brown).

411. Lorge, I. *The English semantic count.* *Teach. Coll. Rec.*, 1937, 39, 65-77.—"The English semantic count is concerned with the discovery of the frequency with which each of the various meanings of multi-meaning words are used in a representative sample of English and American writing." The methods of making the count and the materials used are described.—*J. M. Stalnaker* (Princeton).

412. Lowie, R. H. [Ed.] *Essays in anthropology presented to A. L. Kroeber.* Berkeley: Univ. California Press, 1936. Pp. xxiii + 433. \$6.50.—Seven articles are of psychological interest: Handy

on native Hawaiian dreaming in relation to spirit kindred and sickness; Radin on Ojibwa and Ottawa puberty dreams; Du Bois on the wealth concept as an integrative mechanism in a California culture; Goldenweiser on the individual in primitive societies; Reichard on Navaho attitudes toward kinship avoidance; Warner on the social configuration of Murngin magical behavior; and Thurnwald on "Socialpsychische Abläufe im Volkerleben." Carl L. Alsberg, a life-long friend, writes "Personal Reminiscences," which calls attention to Kroeber's serious study of "abnormal psychology, especially psychoanalysis." The only indication of a psychoanalytic interest in Kroeber's writings is his somewhat lengthy review, in 1920, of Freud's *Totem and Taboo*. However, he has written on the relation of psychology to anthropology and on the attempts to psychologize anthropology, he has commented upon the speech of a Zuni child, and his first field experience resulted in interpretations of the symbolism of Arapaho art.—*M. A. Mook* (Brown).

413. Lundberg, G. A. Social attraction-patterns in a rural village: a preliminary report. *Sociometry*, 1937, 1, 77-80.—In 1936 the 272 families of a Vermont village of about 1000 population were questioned as to their "friendships"; 94% furnished the information. Each family was scored on the Chapin scale of socio-economic status and information on size of family, housing, etc., was gathered. Partial corroboration of such testimony was obtained from other sources. The population was found to be divided into a few well-defined constellations centering in conspicuous individuals; isolated individuals and "mutual pairs, triangles, and chains" were also found. The number of choices averaged 2.3, with a range of 0-8. Families at the average or below in socio-economic status tended to choose friends of higher status. A brief theoretical discussion is included. A more elaborate development of the results with sociometric charts is planned.—*L. J. Stone* (Sarah Lawrence College).

414. Mann, C. W. A test of general ability in the Fiji Islands. *Psychol. Bull.*, 1937, 34, 566-567.—Abstract.—*R. H. Brown* (Clark).

415. Mayer, A. Erdmutter und Hexe. (Earth-mother and witch.) Munich: Datterer, 1936. Pp. 64. RM 3.20.—Mayer considers that the medieval hostility to women and persecutions of witches were not the immediate result of Christian asceticism, but rather a reaction against an old cult of the earth-mother (Diana, Nerthus) among Indogermanic peoples. Heathen earth-magic and sorcery were especially practised by women. Hence witch hunts were also chiefly directed against women.—*P. L. Krieger* (Leipzig/Munich).

416. Meyers, R. Aphasia: a problem in differential diagnosis and re-education. *Quart. J. Speech*, 1937, 23, 357-377.—A five-fold classification of speech disorders is presented, taking account of etiology as well as locus of the disease process. Manifestations of speech disturbance are accordingly due to (1) aberrations of personality, (2) develop-

mental anomalies and other disease processes in the peripheral mechanisms involved in speech, (3) disease processes in the segmental mechanisms involved in speech, (4) disease processes in the subcortical coordinating mechanisms represented by the cerebellum and basal ganglia, and (5) disease processes in the highest integrating mechanisms represented by the cerebral hemispheres and cortex. "The term aphasia should be reserved for disturbances of speech which are manifested only as a disability of formulating and communicating the arbitrary social symbols of perceptual patterns." Various etiologic factors may underlie aphasia, e.g., brain trauma, pathological process of the cerebral blood vessels, brain tumors, infections of the brain, degenerative brain diseases, allergic cerebral edema, pre- and post-convulsive seizure states. Cases are cited to show that recent evidence makes untenable the various theories of the localization of language functions in brain centers. Moreover, psychological considerations are corroborated by clinical evidence in throwing doubt on the existence of "pure" aphasia of the various alleged types. On the basis of the preceding analysis of aphasia resting upon organic etiology, the author summarizes an appropriate sequence of procedures for the speech re-education of the aphasic.—*W. H. Wilke* (New York University).

417. Money-Kyrle, R. E. The development of war. *Brit. J. med. Psychol.*, 1937, 16, 219-236.—Among the conscious motives of war are suggested: population pressure, ambition of leaders or groups, desire for vengeance, fear. Psychoanalytic theories of the unconscious roots of war include the sexual theory, the Oedipian theory, the paranoid theory. An account of the development of war is given in terms of a combination of the three psychoanalytic theories.—*E. R. Hilgard* (Stanford).

418. Moreno, J. L. Sociometry in relation to other social sciences. *Sociometry*, 1937, 1, 206-219.—Sociometry aims to determine the basic structures of human societies. Because of the large number of human individuals, work has been done on small groups, now totalling over 10,000 persons. It is essential that this type of research be done with the spontaneous participation of the S's. This is aided by techniques such as that of the auxiliary ego. The procedure must be fitted to the specific community for best results. Types of sociometric procedure are briefly reviewed, along with the concept of *tele*, i.e., the process of attraction-rejection between individuals. A variety of sociometric structures is described. Marxian theory and a type of psychological theory represented by J. F. Brown's schematization of social structures are criticized; sociometry is to play a central role in social theory and concepts should emerge out of it, rather than on an *a priori* basis. The resistances against sociometric experiments are mentioned.—*L. J. Stone* (Sarah Lawrence College).

419. Muhlmann, A. Vibrato and tremolo. 1936 *Music Teach. nat. Ass.*, 1937, 159-160.—The vibrato is a regular pulsation; the tremolo is usually irregular. The vibrato has a frequency of from 6.2 to 6.6 per

second; the tremolo commonly has one of from 7 to 10. The trill has much the same characteristics as the vibrato. Its first tone predominates, while in the tremolo it is the second which stands out.—P. R. Farnsworth (Stanford).

420. **Murdock, G. P. [Ed.] Studies in the science of society presented to Albert Galloway Keller.** New Haven: Yale Univ. Press, 1937. Pp. xxii + 555. \$6.00.—Sumner-Keller sociology is factual, behavioristic, and cultural. "In the current controversy between the 'behaviorists' and 'introspectionists' . . . they are aligned squarely with the former." "In those schools of sociology where systematic generalizations are couched in such terms as competition and cooperation, conflict and accommodation, or subordination and superordination, scientific progress is effectively inhibited." Whereas the evolutionary aspect of adjustment is considered, the problem of the adjustment of culture traits to man's original nature is not, "largely because the physiologist and the psychologist have yet to give us an adequate definition of the latter." Finally, the sociology of Sumner and Keller is psychological to the extent that it recognizes the compulsive nature of impulse underlying human behavior. The Sumner-Keller classification of groups into "in" and "out" is essentially psychological in basis, in terms of the attitudes and actions of individuals toward the groups of which they are members or are not.—M. A. Mook (Brown).

421. **Murphy, G., Murphy, L. B., & Newcomb, T. M. Experimental social psychology.** (2nd ed.) New York: Harper, 1937. Pp. xi + 1121. \$4.00.—The content of the volume has been nearly doubled, although its format is somewhat more compact. The objective has been changed from a listing of the material yielded by research to a systematic interpretation of the evidences at hand on the socialization processes. The chapter organization is similar to that of the first edition, but Part I has been divided into two parts, Part II (now III) has been greatly expanded, and Part IV covers the material of the former last two chapters. Full documentation is secured by a list connecting the text references with the bibliography (1111 titles); a special feature is a series of charts summarizing groups of studies on related topics.—R. R. Willoughby (Brown).

422. **Nadel, S. F. A field experiment in racial psychology.** *Brit. J. Psychol.*, 1937, 28, 195-211.—School boys from two primitive groups, two tribes in northern Nigeria, were required to make repeated reproductions of a narrative, and to remember and describe a number of pictures representing material with which the subjects were thoroughly familiar. In the story experiment one tribe laid stress on logical and rational elements, while the other showed distinct appreciation of situational facts and connections of time and place. In the picture experiment the response of the first group was meaning-oriented, the response of the second enumerative and appreciative of spatial arrangement. Between the psychological differentiation and the cultural differentiation there existed a close parallel. Three different

psychological "types" were distributed in different proportions among the two groups.—M. D. Vernon (Cambridge, England).

423. **Newcomb, T., & Svehla, G. Intra-family relationships in attitude.** *Sociometry*, 1937, 1, 180-205.—Thurstone scales for measurement of attitudes to church, war and communism were administered to 1568 individuals, members of 558 families, drawn from diverse urban regions, to determine the extent of covariation of the attitudes within families, and the factors upon which such relationships may depend. The data are presented in tabular form in terms of sex, age, age of parents at children's birth, religious affiliation, and occupational status. The interrelationships are presented in considerable detail; the hypothesis is suggested that "personal influence of family members upon each other is effective chiefly through the kinds of institutional influences which they bring to bear upon each other." For example, parent-child correlations, while positive, are lower than those of fathers-mothers, since the former "share some, but not all of the institutional influence which affect their parents' attitudes." "Personal relationships (in large part) determine institutional influences, which (in large part) determine attitudes."—L. J. Stone (Sarah Lawrence College).

424. **Nowotny, K. A. Ortungssinnbilder mit mythischem Gehalte aus zwei Jahrtausenden.** (Topographical emblems with mythical content from the past two thousand years.) *Mitt. anthrop. Ges. Wien*, 1937, 67, 181.—Nowotny points out the similarity of topographical symbols (the direction of heaven and the wind), emblems of calculation (age of the world), and favorite colors in myths from the most widely separated regions (Mexico, China, India).—P. L. Krieger (Leipzig/Munich).

425. **Ortmann, O. Tone quality and the pianist's touch.** 1936 *Music Teach. nat. Ass.*, 1937, 127-132.—Several figures are offered proving that piano tone quality is largely a function of intensity. Changes in pitch and duration also alter quality.—P. R. Farnsworth (Stanford).

426. **Ortmann, O. The contribution of physiopsychology to musicology.** 1936 *Music Teach. nat. Ass.*, 1937, 213-218.—"Physiopsychology contributes three things: it helps to interpret the data of the historical approach; it organizes, systematizes, and unifies and lends perspective to the functional approach; and it contributes the experimental procedure to a field where it is needed. . . . It is not a part, it is rather the substructure on which musicological research is based."—P. R. Farnsworth (Stanford).

427. **Ortmann, O. Research and the conservatory.** *Yearb. Music Educ. nat. Conf.*, 1936, 293-298.—The author indicates what can be done by way of physiological, psychological and educational research in a conservatory of music such as the Peabody.—P. R. Farnsworth (Stanford).

428. **Osborn, F. Measures of quality in the study of population.** *Ann. Amer. Acad. pol. soc. Sci.*,

1936, 188, 194-204.—Advance in the problems of population quality depends on objective measures of quality, which are still in process of development. Much of the effort to date has yielded inconclusive and unsatisfactory results. A greater knowledge of heredity and environment is necessary. Some significant advances are being made in the following fields: psychological measurements and their distribution in the population; physical traits; mental defects and disorders; race and nationality differences; and indirect measures of quality of various sorts. A brief bibliography suggests some of the recent work in these fields.—*R. E. L. Paris* (Brown).

429. Pichon, E. *Temps et idiome. La voie linguistique d'exploration du problème psychologique du temps.* (Time and idiom. The linguistic means of exploration of the psychological problem of time.) *Rech. phil.*, 1935-1936, 5, 197-233.—The study of taxemes (units of grammatical arrangement) and sememes (ideas chosen for the clarification and classification of thought) shows that languages with increasing degrees of culture eliminate spatial ideas and make more and more place for temporal ones. This is in agreement with a more general factor, that of replacing objective with subjective factors. Having only human methods and tools, it is impossible to attain a rigorous objectivity; a step forward in philosophy would be to show the personal coefficient in our opinions. Language can help in the analysis of the deeper psychological life and thus show the direction in which conscious human culture must unfold.—*G. Goldman* (Sorbonne).

430. Pohlen, K. *Die Morbidität und Letalität in Selbstmord.* (Morbidity and mortality in suicide.) *Dtsch. med. Wschr.*, 1936, Part I, 777.—*P. L. Krieger* (Leipzig/Munich).

431. Popenoe, P. *Martial counseling, with special reference to frigidity.* *Marriage Hyg.*, 1937, 4, 36-46.—After describing five types of frigidity frequently met with in marital counseling, the author concludes that most frigidity is due, not to any anatomical or physiological pathology, but to neurotic inhibition of a fundamental mechanism. This point of view leads to optimism. It is to be remembered that the forces working toward sexual normality are extraordinarily powerful. At any given time three-fourths of all married women will report that they find sexual relations pleasurable. Of the dissatisfied minority, a large number either have been better adjusted in the past or will be in the future. The great majority of sexual maladjustments can be cured without disproportionate effort if they are recognized as problems of emotional frustration or distortion and are dealt with by the accepted principles of mental hygiene.—*M. Keller* (Brown).

432. Proskauer, G. *Graphometrische Untersuchungen bei Gesunden, Schizophrenen und Manisch-Depressiven.* (Graphometric studies of normals, schizophrenics and manic-depressives.) Berlin: Pfau, 1936. Pp. 12.—*R. R. Willoughby* (Brown).

433. Rabaud, E. *Phénomène social et les sociétés animales.* (Social phenomena and animal societies.) Paris: Alcan, 1937. Pp. xi + 321. Fr. 45.—From his analysis of group manifestations in the animal societies of arthropods and vertebrates, the author concludes that there is no coordination in the movements of the ensemble which is anything but "similar movements brought about synchronously as an effect of an external stimulus or of interaction. . . . Consequently incoordination reigns in every animal society. . . . Each member of the community works as an isolated unit because of impelling forces, independent of consequences."—*G. Goldman* (Sorbonne).

434. Radin, P. *Primitive religion, its nature and origin.* New York: Viking, 1937. Pp. x + 322.—Religion is seen to consist of two parts, a feeling and certain specific acts, customs, beliefs and conceptions associated with the feeling. The belief is one in spirits outside man to whom are ascribed powers greater than his own. Religion is assumed to have evolved from magic, in a process of disentanglement of the ego from infantile subjectivism. The basis for man's postulation of the supernatural is seen as his physical insecurity; the supernatural constitutes a sort of compensation fantasy. Radin finds individual differences in the degree to which a need for the supernatural is felt. These differences are manifest in men's descriptions of their deities. All people are spontaneously religious at crises, markedly religious people are religious on numerous other occasions as well, and indifferently religious people are secondarily religious on occasions not connected with crises. This difference leads to a fundamental distinction, made by this author, between the priest-thinker (religious formulator) and the layman. The book describes the role of the religious formulator, discusses the economic determinants, the magical substratum, the relation between the crises of life and the various transition rites (initiation into tribal secrets at puberty, etc.), the processes of evolution from magicians to priests, from ghosts to gods, and also contains discussions of the approach to the supernatural, monolatry and monotheism, and the soul.—*J. McV. Hunt* (Brown).

435. Radin, P. *Ojibwa and Ottawa puberty dreams.* In Lowie, R. H., *Essays in Anthropology Presented to A. L. Kroeber.* Berkeley: Univ. California Press, 1936. Pp. 233-264.—Four pages of explanatory text followed by a series of 77 dream experiences gathered mostly by Radin from native informants. This series is in two parts: (1) 25 puberty-fasting dreams, 3 gathered by early 19th-century students, the others by Radin from 1910 to 1920, and (2) 52 shorter personal dreams from two Ottawa informants collected by Radin in 1926. The introductory essay describes the individual personalities of his narrators, and relates their dreams to their personality configurations and social status. The rest of the essay, which briefly analyzes the chronological series, presents the thesis that when the native culture was integrated and properly functioning the dreams, or at least the manner of

their relating, were strictly culturally patterned, but with the progressive disintegration of the culture the dreams themselves became less formally formulated and "relapsed into their true significance, that of being more or less symbolical disguises and distortions of personal problems." The personal dream, however, constitutes "at all times a covert threat to the pattern"; the pattern depends upon integrated cultural functioning and is always more or less vulnerable.—*M. A. Mook* (Brown).

436. Reichard, G. A. **Attitudes toward avoidance: a suggestion.** In Lowie, R. H., *Essays in Anthropology Presented to A. L. Kroeber*. Berkeley: Univ. California Press, 1936. Pp. 265-272.—The Navaho mother-in-law avoidance shows a conscious dichotomy of attitudes based upon kinship. The present Navaho attitude between sons- and mothers-in-law is one of mutual helpfulness, and the tendency, under the encroachment of white culture, has been away from the formality of avoidance.—*M. A. Mook* (Brown).

437. Robbins, S. D., & Robbins, R. S. **Correction of speech defects of early childhood.** Boston: Expression Co., 1937. Pp. 67. \$1.00.—A simple exercise book for parents and teachers of young children who are handicapped by speech defects. Subjects treated are: causes of speech defects; correction of 11 common ones, and of 13 sorts of mispronunciation.—*C. B. Bliss* (W. Brookfield, Mass.).

438. Schilling, R. **Der Musculus sternothyroideus und seine stimmphysiologische Bedeutung.** (The sternothyroid muscle and its significance for the physiology of voice.) *Arch. ges. Phonet.*, 1937, 1, Part II, 65-87.—*P. L. Krieger* (Leipzig/Munich).

439. Schoen, M. **Report of the Committee on Experimental Psychology of Music.** 1936 *Music Teach. nat. Ass.*, 1937, 362-375.—Review of recent articles by D. E. Baier, E. G. Wever and C. W. Bray, J. P. Guilford and H. M. Nelson, P. F. Ausherman, L. E. Eberly, L. M. Tilson, O. I. Jacobsen, C. E. Seashore, and Kate Hevner.—*P. R. Farnsworth* (Stanford).

440. Sherif, M. **An experimental approach to the study of attitudes.** *Sociometry*, 1937, 1, 90-98.—Judgments of autokinetic movement (as described earlier: see X: 1332) were required of 7 groups of 2 members each. One member of each group (the same person) fixed his judgments within a range predetermined for each group; the other S's were naïve. 50 judgments were taken in the first session. In the second session each naïve S was present alone. Afterwards they were asked how far the light usually moved and whether they were influenced by the judgments of the other S. The judgments, in general, were consistent with the suggestions given, as were the answers to the first question. Some differences in susceptibility to such influence are evident. Introspections showed consciousness of the developing norm, but not necessarily of the influence of the other member of the group. Some other modifications of the general technique are noted;

there is a brief discussion of the relation of such experiments to the psychology of suggestion and attitudes.—*L. J. Stone* (Sarah Lawrence College).

441. Sisson, E. D. **Habits of eye-movement in reading.** *J. educ. Psychol.*, 1937, 28, 437-450.—This is an experimental evaluation of Dearborn's contention that "short-lived motor habits" are the essence of good reading ability. 60 college students read easy narrative material and scientific prose in line lengths of 9, 14, 19, 27, 32, and 40 picas before the Minnesota eye-movement camera. The "short-lived motor habits" were measured by the frequency, in percent of lines read, with which the same number of fixation pauses plus or minus one occurred in successive lines (the "habit index"). The following conclusions are supported: (1) The habit index is higher for short lines than for long lines, as contended by Dearborn, but this is accounted for by probability alone. (2) There is no consistent difference between the habit indices for narrative and scientific prose materials. (3) Good readers tend to have higher habit indices than poor readers, but the more frequent fixations of the latter permit interpretation of this difference in terms of probability. (4) The habit index does not measure an individual trait, because there is little if any consistence in the habit index of S's from one situation to the next. (5) The pattern of temporal distribution of pauses does not seem to be related to the habit index. (6) In brief, the habit index is a consequent of a low fixation frequency, and a result, rather than a cause, of rapid reading.—*A. W. Melton* (Missouri).

442. Skeels, H. M., & Fillmore, E. A. **The mental development of children from underprivileged homes.** *J. genet. Psychol.*, 1937, 50, 427-439.—Family groups of orphanage entrants were studied to discover possible relationships between the development of intelligence and home background in the uniformly poor homes represented in this study. Various comparisons of children within the group and between members of this group and unselected children suggest a retarding effect of poor homes on mental development.—*E. Heidbreder* (Wellesley).

443. Smeltzer, C. H., & Adams, C. R. **The educability of transients.** *J. educ. Psychol.*, 1937, 28, 382-386.—A group of 43 transient boys, ranging in age from 17 to 23 years, was given a battery of psychometric tests before and after a six-months vocational training course. The median number of school grades completed before entering the transient camp was 9.2. The group as a whole made eight months' progress on the Terman group test of mental ability, six months' progress on the new Stanford achievement test, gained five and two percentile points, respectively, on the Stenquist mechanical aptitude tests I and II, and raised its rating on the Thurstone personality schedule from C to B. The group is said to be representative of the transient group in Pennsylvania.—*A. W. Melton* (Missouri).

444. Steggerda, M. **Testing races for the threshold of taste, with PTC.** *J. Hered.*, 1937, 28, 309-310.—Some 125 whites, 202 negroes, 29 Maya and

58 Navajo Indians were given the PTC (phenylthio-carbamide) taste test, designed by Blakeslee. Racial differences, as well as individual differences in overt reactions, were obvious. The stolid Navajo, in contrast to the expressive white, chewed away without a murmur of disgust or complaint, indicating either his dullness of taste or else great self-control in revealing his feelings. The latter is doubtless the truer explanation. Steggerda asks for help from the psychologist in dealing with the subtle differences of cultural factors in race testing, and at the same time recognizes their significance intra-racially in securing a true reaction to PTC taste testing.—*G. C. Schwesinger* (American Museum of Natural History).

445. Taylor, H. R. Absolute change and relative stability in vocabulary test scores of college students. *Psychol. Bull.*, 1937, 34, 566.—Abstract.—*R. H. Brown* (Clark).

446. Thal, J. H. van. Einige psychologische Faktoren in der Behandlung der Gaumenspalten-sprache. (Some psychological factors in the treatment of the speech of patients with cleft palate.) *Msschr. Ohrenheilk.*, 1937, 71, 430-432.—*P. L. Krieger* (Leipzig/Munich).

447. Thorndike, E. L. Variations among cities in per capita income. *J. Amer. statist. Ass.*, 1937, 32, 471-479.—The per capita income of 117 cities of 25,000 or over is estimated by means of an index based on 11 items selected from among 20. The selection and weighting of the items are based partly on their intercorrelations and partly on logical considerations relating to the nature of the sampling. Correlations between this index and certain additional characteristics of the cities are presented and discussed.—*E. E. Cureton* (Alabama Polytechnic Institute).

448. Ungern-Sternberg, R. v. Die Ursachen neuzeitlicher Ehezerüttung. (The causes of modern marital discord.) Berlin: Stilke, 1937. Pp. 103. RM. 2.80.—*P. L. Krieger* (Leipzig/Munich).

449. Ungern-Sternberg, R. v. Statistische Ermittlungen über Einkommenshöhe und Kinderzahl bei schwedischen und norwegischen Ehen. (Statistical studies on the relationship between income and number of children in Swedish and Norwegian marriages.) *Arch. BevölkWiss. BevölkPolit.*, 1937, 7, 210.—In regard to Edin's and Hutchinson's conclusions, based on the population of Sweden, that a rise of income is accompanied by an increased number of children, Ungern-Sternberg points out an important exception, viz., that Swedish and Norwegian industrial workers—skilled and unskilled—show a markedly decreased reproductivity with increasing income. Only with a relatively high income is there a slight increase in the average number of children of the Norwegian families.—*P. L. Krieger* (Leipzig/Munich).

450. [Various.] A new approach to eugenics. *J. Hered.*, 1937, 28, 304-308.—Excerpts from the American Eugenics Society's May 14, 1937, report of "Conferences on the relation of eugenics in the fields of recreation, nursing, education, and medicine."

Pangburn reviews major values of organized recreation for eugenics: self-development, self-control, self-management. Gaps in recreational work include relative neglect of the "mating age," 15 to 25, and in family recreational and co-recreational activities. Dines, speaking for nursing, looks to better planned motivation for child-bearing and rearing, improved housing and home-making, marriage and maternity aids, pre-marriage and marriage consultation, college courses on the family, and education and legislation for selective sterilization. MacCracken stresses the indirect value of eutheic education, such as that given at Vassar. Frank would have education include more attention to human values and goals through nursery schools, parent education, mental hygiene, and recognition of human motivation throughout. Emerson lists seven phases of a eugenic program which medicine could promote: eugenic counselling, family pedigree recording, pre-nuptial health examination, confidence in safe child-bearing, financial concessions to worthy parents, and readiness to teach contraception and to accept sterilization for appropriate cases. The foreword to the report points out the significance for eugenic policy and planning of the studies by psychologists on individual differences in any of the socio-economic groups, and of the much smaller importance of average differences between groups.—*G. C. Schwesinger* (American Museum of Natural History).

451. Voronoff, S. Love and thought in animals and men. London: Methuen, 1937. Pp. 138. 6/- net.—An anecdotal account of various phenomena of love in animals and of how love in man may stimulate and exalt thinking processes.—*F. C. Bartlett* (Cambridge, England).

452. Wagner, R., & Zintl, H. Über Klang- und Vokalanalysen mit Membranen, die nach Art der Helmholtzschen Basilarmembran schwingen. (Concerning sound and vowel analyses with membranes that vibrate after the manner of the Helmholtz basilar membrane.) *Z. Biol.*, 1937, 98, 1-10.—The experiments show first the vibration forms of membranes which vibrate after the manner of the Helmholtz basilar membrane when a noise or vowel acts upon them.—*P. L. Krieger* (Leipzig/Munich).

453. Warner, W. L. The social configuration of (Murngin) magical behavior. In Lowie, R. H., *Essays in Anthropology Presented to A. L. Kroeber*. Berkeley: Univ. California Press, 1936. Pp. 405-415.—Death, sickness, bad luck, and in general all those cases where the individual is seriously out of adjustment with his community, physically, mentally, or socially, are looked upon by the Murngin of Australia as results of black magic. White magic is used to cure sickness, heal wounds, and in general to remove from the individual his feeling of dysphoria, giving him a sense of well-being and adjustment to his group. Both individual and group behavior are affected when magic is in effect. The black magic victim becomes sick, has bad luck, has insufficient physical energy, and in general feels himself inadequate. "His condition greatly resembles that of an

obsessive psychotic individual in Euro-American culture"; and both he and his society recognize his inadequacy. Among the Murngin he is alone and isolated; his society withdraws, and even his near kin deny him support; all in his community change their attitudes toward him and put him in a new category, abnormal, near the realm of the sacred and tabu. White magic may function to re-establish the victim's equilibrium; if unsuccessful, the individual may cooperate in society's attitude of withdrawal and die as a result of "psychic suicide."—*M. A. Mook* (Brown).

454. Wicke, R. *Die Auswertung der neuen deutschen Psychologie in der Musikpsychologie und in der Musikerziehung.* (The evaluation of the German psychology in the psychology of music and in musical education.) *Völk. Musikerzieh.*, 1937, 3, 25ff.—*P. L. Krieger* (Leipzig/Munich).

455. Wolfe, W. *Successful living.* London: Routledge, 1937. Pp. 210. 7/6 net.—Successful living is claimed to depend upon observation of the four cardinal points of social adjustment, occupational adjustment, sexual adjustment, and the adjustment to the problem of leisure. There are many secondary points which have to be considered between these, and the author sets himself to give good advice concerning all of them.—*F. C. Bartlett* (Cambridge, England).

456. Wolman, S. *Sociometric planning of a new community.* *Sociometry*, 1937, 1, 220-254.—The sociometric planning of "Centerville," a Resettlement Administration village in the Middle West, is carefully detailed, serving to illustrate the broad application of sociometric testing and assignment in open communities. The entire procedure is described, along with sociograms and information on the families comprising the group. "Most of the families here studied have . . . greatly appreciated its [sociometry's] application. Properly applied, it may . . . produce in a short length of time a more harmoniously knit structure of relationships within a community."—*L. J. Stone* (Sarah Lawrence College).

[See also abstracts 43, 93, 142, 253, 273, 284, 294, 301, 308, 332, 338, 339, 340, 345, 354, 476, 482, 501, 502, 505, 520, 532, 534, 545, 559, 560, 569, 570, 575, 576, 584, 588.]

CRIME AND DELINQUENCY

457. Anderson, H. D., & Davidson, P. E. *A comparison of county jail inmates with the working community from which they come.* *J. crim. Law Criminol.*, 1937, 28, 239-248.—A comparison of the social data concerning 67 miscellaneous county jail prisoners in San José, California, with samples of the general population of that region indicates that jail prisoners tend to be inferior in social, occupational, and economic conditions of origin, training, schooling, opportunity, and achievement. It is probable that suitable occupational preparation and guidance and more favorable social and occupational op-

portunity would have made a difference in their careers.—*L. Ackerson* (Illinois Institute for Juvenile Research).

458. [Anon.] *The delinquent child and the institution.* *N. Y. St. Dep. soc. Welf., Div. Publ.*, 1937, No. 3. Pp. 72.—*R. R. Willoughby* (Brown).

459. Benes, M. P. *Lebenslauf eines rückfälligen Verbrechers.* (Life of a repeated offender.) *Z. Kinderforsch.*, 1936, 46, 1-44.—A detailed case history of a boy with a long police record. It is concluded that his difficulties can be accounted for by the fact that he was a lad of unusually aggressive temperament with a strong drive toward activity, and that he was reared in a poor environment by an alcoholic father of questionable character and an invalid mother who was unable to prevent the early establishment of wayward habits.—*F. L. Goodenough* (Minnesota).

460. Claparède, H. C. *Ein Beitrag zur Jugendfürsorge.* (A contribution to the care of youth.) *Schweiz. Lehrer-Ztg.*, 1937, 82, No. 11, 165-166.—With special reference to P. de Mestral-Combremont's book *La Sauvegarde de la Jeunesse*, the author sets himself to transform the prevailing penal system of the juvenile courts. This should not be terrifying, but psychically productive, that is, actually educative and bettering. The youthful delinquent should therefore be subjected to a psychological-educational investigation, besides rather long observation in a boarding school (or institution) for the purpose of clearing up the motive of his deed; and in the interest of his regeneration he should learn a vocation. Practical proposals are discussed on the judicial-administrative side.—*P. L. Krieger* (Leipzig/Munich).

461. Durea, M. A. *Personality characteristics of juvenile delinquents. II. Reliability of differentiating traits.* *Child Developm.*, 1937, 8, 257-262.—"The first section of this investigation dealt with a method whereby items were selected from each of four tests of the Pressey Interest-Attitude Tests which best differentiate delinquents from non-delinquents" (see XI: 4697). "By way of more complete verification of the differences in personality characteristics between delinquents and non-delinquents the technique of differential scoring was applied to two entirely new samples. One of these consists of a group of 13-year delinquents compared with a control group of similar life age." Differences between the means of these two groups are entirely reliable, with a critical ratio of 7.2. The other group "consists of 115 delinquents of heterogeneous life age, the median being 16.6 years." The scores of this group when compared with those of 374 non-delinquents showed an average difference of 7.6 points with a critical ratio of 14.5.—*F. D. McTeer* (Wayne).

462. Durea, M. A.; & Pataky, J. *A clinical method for diagnosing the seriousness of juvenile delinquency.* *J. crim. Law Criminol.*, 1937, 28, 232-238.—A revision is presented of the author's "delinquency index," which is based upon duration of

delinquency, frequency of appearance in juvenile court, and sum of "scale values" for the separate acts of delinquency.—*L. Ackerson* (Illinois Institute for Juvenile Research).

463. Farnell, F. J. The new penology—from id to superego. *Med. Rec.*, N. Y., 246, 8, 354-356.—The author summarizes his article with the following conclusions: "We have, for the most part, dropped the blind, brutal punishment of delinquents as an expression of our social id, and we have adopted, conscience-stricken as we are, a superego attitude, which makes us know that we have done wrong and we are trying in an emotional way to remedy it. Perhaps some day the problem may progress to the point where our intellectual faculties will come into play and the 'ego' of the group mind may decide on ways and means of dealing with the delinquent. Then will be formulated, on a basis of experience and reason, specific objectives with specific machinery and methods for accomplishing our purpose."—*M. H. Erickson* (Eloise Hospital).

464. Fichandler, A. On locking the stable. *Sch. & Soc.*, 1937, 46, 467-469.—The author advocates the legal creation of a special board consisting of physicians, psychologists, educators, psychiatrists and sociologists to which those pupils may be referred on leaving school whose behavior has been "such as to indicate that they are potential delinquents." Such a board "without any publicity whatsoever" would give a thorough examination and diagnosis and institute any necessary remedial treatment until rehabilitation is complete. The child would be in no way deprived of his liberty, but would be under supervision to the end that criminal activity would be prevented and society protected.—*M. Lee* (Chicago).

465. Gregor, A. Zur psychischen Hygiene des Gefangenen. (Mental hygiene of the prisoner.) *Allg. Z. Psychiat.*, 1936, 105, No. 9, n.p.—*P. L. Krieger* (Leipzig/Munich).

466. Gross, K. Über paranoische Mörder. (Concerning paranoid murder.) *Jb. Psychiat. Neurol.*, 1936, 53, 85.—*P. L. Krieger* (Leipzig/Munich).

467. Gummersbach, H. Zur kriminologischen und rechtlichen Beurteilung der Kindestötung. (The criminological and legal evaluation of child murder.) *M Schr. KrimBiol.*, 1937, 28, 364.—Women who abort are, psychologically speaking, active individuals who consider ways and means of ridding themselves of the undesired fetus and find a way to do so. On the other hand, women who murder their infants are passive individuals who postpone making a decision and wait for things to happen. They are also inactive sexually, consider their condition fatalistically, and often commit murder merely to please the father of the child.—*P. L. Krieger* (Leipzig/Munich).

468. Hacker, E. Soziale Kapillarität und Kriminalität. (Social capillarity and criminality.) *M Schr. KrimBiol.*, 1937, 28, 353.—*P. L. Krieger* (Leipzig/Munich).

469. Hales, W. M. Results of a group intelligence re-test with a reformatory group. *J. juv. Res.*, 1937, 21, 181-188.—This study reports the results of a re-examination of 118 reformatory inmates with the Kuhlmann-Anderson test. Average change of +6.23 IQ units is reported. The coefficient of correlation was .8937. Analysis is also made of the relation between IQ change and the amount of educational training.—*F. M. Teagarden* (Pittsburgh).

470. Jank, C. Sexualdelikte bei Kindern. (Sex offenses of children.) Leipzig: Gärtner, 1937. Pp. 15.—*R. R. Willoughby* (Brown).

471. Krekeler, —. Über den Fall R., einen paranoiden schizophrenen Totschläger. (Case R., a paranoid schizophrenic murderer.) *Allg. Z. Psychiat.*, 1936, 105, 79.—A schizophrenic, who had been apprehended after two suicidal attempts, but had been released years previously and had shown no further peculiarities, murdered his mother in a bestial manner from religious motives.—*P. L. Krieger* (Leipzig/Munich).

472. Krug, J. 50 Jahre Frauenkriminalität in Deutschland, 1882-1932. (50 years of criminality among women in Germany, 1882-1932.) Munich: Lindauer, 1937. Pp. 134.—*P. L. Krieger* (Leipzig/Munich).

473. Lange, J. Einige kriminologische Lehren des Falles Seefeld. (Several criminological views concerning the Seefeld case.) *M Schr. KrimBiol.*, 1937, 28, 37.—The case of Seefeld is similar to those of Haarmann and Kürten. The striking stereotype of the course of the three cases leads one to believe that habitual actions have led to automatism. Common to all are vainness, awareness of ethical evaluation, theatrical feigning of ethical behavior with unethical thoughts, sociability, marked sexuality and emotional apathy. For the last two characteristics one finds in all three cases hereditary roots.—*P. L. Krieger* (Leipzig).

474. Langkamp, L. Zur Kriminalpsychologie der Blutschande. (The criminal psychology of incest.) Bottrop: Postberg, 1936. Pp. 21.—*R. R. Willoughby* (Brown).

475. Lemke, R. Über die Zurechnungsfähigkeit eines funfzehnjährigen Mörders. (The accountability of a 15-year-old murderer.) *Allg. Z. Psychiat.*, 1937, 105, 259.—A psychopathic boy of 15 who had confessed to the clinical observer that he had murdered his grandmother, declared himself innocent when put in prison, obviously for fear of punishment. His entire mental attitude precluded the possibility of considering his confession the result of an hysterical self-accusation.—*P. L. Krieger* (Leipzig/Munich).

476. MacLeod, W. C. Police and punishment among native Americans of the plains. *J. crim. Law Criminol.*, 1937, 28, 181-201.—A survey is given of the systems of police organization and punishments among plains Indians. It is concluded that the development of the police function and of police organization of a given society is to be viewed not

only in terms of inner necessities, but in terms of the history of that people's political pattern.—*L. Ackerson* (Illinois Institute for Juvenile Research).

477. Möller, J. *Alkoholismus und Sittlichkeitsverbrechen*. (Alcoholism and moral crimes.) Quakenbrück: Kleinert, 1937. Pp. 23.—*R. R. Willoughby* (Brown).

478. Moore, J. E. A comparative study of the intelligence of delinquent and dependent boys. *J. educ. Psychol.*, 1937, 28, 355-366.—Previous comparisons of the intelligence of delinquent and dependent boys are said to be unsatisfactory. The Otis S-A test was given to 152 institutionalized delinquent boys between 14 and 18 years of age, and to 157 institutionalized dependent boys of the same age range. Both groups gave scores below the norms for the test, but the median Otis IQ of the delinquent boys was significantly lower than the median of the dependent boys. This difference was verified when the Myers mental measure, a non-verbal test, was given to some of the boys in each group.—*A. W. Melton* (Missouri).

479. Nohl, M. W. Crime prevention from the cradle up. *J. crim. Law Criminol.*, 1937, 28, 220-231.—The creation of a "Crime Prevention Bureau" in the Department of Justice at Washington, D. C., and in other political units is suggested.—*L. Ackerson* (Illinois Institute for Juvenile Research).

480. Ribero, L. *Dépistage des anomalies physiques et mentales chez l'enfant et prévention criminelle au Brésil*. (Determination of physical and mental anomalies in children and crime prevention in Brazil.) *Biotypologie*, 1936, 4, 160-163.—*M. H. Piéron* (Sorbonne).

481. Roesner, E. *Die örtliche Verteilung der Kriminalität im Deutschen Reich*. (The local distribution of criminality in Germany.) *M Schr. KrimBiol.*, 1937, 28, 305.—*P. L. Krieger* (Leipzig/Munich).

482. Ross, H. Crime and the native-born sons of European immigrants. *J. crim. Law Criminol.*, 1937, 28, 202-209.—The fact that native-born sons of foreign-born parents show higher crime rates than either the foreign-born immigrants themselves or the native-born sons of native-born parentage is explained tentatively as due to lowered economic status of immigrants' sons, i.e., irregular, poorly paid employment, broken homes, inadequate educational and recreational opportunity, and a general stunted environment. If the factor of economic level were taken into consideration, the author's hypothesis is that all peoples on the same socio-economic level would have approximately the same crime rate.—*L. Ackerson* (Illinois Institute for Juvenile Research).

483. Schürer v. Waldheim, O. *Berufsberatung krimineller männlicher Jugendlicher*. (Occupational guidance of young male criminals.) *Z. Kinderforsch.*, 1936, 46, 45-63.—The author describes the methods of vocational guidance and vocational training used in a school for wayward

boys near Vienna. The value of various physical and mental tests for the discovery of special abilities and the kind of training most likely to succeed with youths of various types are discussed.—*F. L. Goodenough* (Minnesota).

484. Summers, W. G. A new psychogalvanometric technique in criminal investigation. *Psychol. Bull.*, 1937, 34, 551-552.—Abstract.—*R. H. Brown* (Clark).

485. Trunk, H. *Soziale Prognose an Strafgefangenen*. (The social prognosis of convicts.) *M Schr. KrimBiol.*, 1937, 28, 5.—Basing his arguments on the prognostic studies of habitual delinquency undertaken by Schiedt and Exner, the author criticizes the conventional method of rating convicts by means of credit points (favorable, doubtful, unfavorable). In distinguishing incorrigible criminals from others, it is necessary in each case to determine individual characteristics and to reach individual decisions, based on a thorough understanding of character in the broadest sense of the word.—*P. L. Krieger* (Leipzig/Munich).

486. Wagner, G. *Kriminalität und Prostitution ehemaliger weiblicher Fürsorgezöglinge, ein Beitrag zum Problem "Erfolg der Fürsorgeerziehung"*. (Criminality and prostitution among girls who have been in custodial care; a contribution to the problem of the result of custodial education.) *M Schr. KrimPsychol.*, 1936, 27, 456-472.—*P. L. Krieger* (Leipzig/Munich).

487. Weber, — v. *Selbstmord als Mordmotiv*. (Suicide as a murder motive.) *M Schr. KrimBiol.*, 1937, 28, 4.—Crime is an offense committed against a social pattern, an unsuccessful adjustment based on one's nature or environment. But this pattern is not the same everywhere and always, and to some extent a person may be brought out of danger by a change of duties. For instance, the habitual poacher may become a capable forester or game-warden. Unfortunately such outlets and readjustments are frequently unavailable.—*P. L. Krieger* (Leipzig/Munich).

[See also abstracts 263, 325, 571.]

INDUSTRIAL AND PERSONNEL PROBLEMS

488. Baumgarten, F. *Die Berufseignung der Schneiderin*. (The vocational qualifications of the dressmaker.) *Schweiz. Damenschneiderin*, 1937, 39, 307-311.—*G. F. J. Lehner* (Brown).

489. Brown, F. Selective tests for dental school candidates. *Oral Hyg.*, 1937, 1172-1177.—To avoid the unreliable results following selection of students on the basis of interviews and recommendations only, it is advocated that personality tests such as the Willoughby revision of the Thurstone and the Bernreuter, manual tests such as the tweezer dexterity and finger dexterity, and mechanical tests such as the Minnesota spatial relations test be given prospective students by competent testers.—*F. A. Mole, Jr.* (Brown).

490. Drabs, J. La présélection professionnelle à l'usine. Une recherche préliminaire dans l'industrie de la soie artificielle. (Vocational selection in a shop. Preliminary investigation in the artificial silk industry.) *Travail hum.*, 1937, 5, 257-285.—Job analysis of workers who sort the material or tie the thread. Rough validation of tests, without detailed statistical analysis. Description of tests involving tachistoscopic presentation of materials with complicated topographical arrangement and continuous choice reaction techniques.—H. E. Burr (Ohio State).

491. Lewitow, —. [Psychotechnical examination of chauffeurs at a central electric station.] *Sovetsk. Psikhotekh.*, 1935, 7, 342-357.—Ratings by engineers were not very reliable. The highest validities were for a test of mechanical intelligence and for rapid observation.—H. E. Burr (Ohio State).

492. Morones, E. B. Leistungs-, Verhaltens- und physiognomische Typen bei jugendlichen Kraftfahrerprüflingen. (Performance, behavior and physiognomic types of young chauffeur apprentices.) Berlin: Triltsch & Huther, 1937. Pp. 42.—R. R. Willoughby (Brown).

493. Morton, N. W. Individual diagnosis; a manual for the employment office. *McGill soc. Res. Ser.*, 1937, No. 6. Pp. 123. \$1.75.—The interview is recognized as the nucleus of the selection process in the individualized treatment of the clientele of the public employment office. Psychological tests are considered "as aids to the vocational interview rather than as independent of it." Brief descriptions of five commonly used paper tests of intelligence are presented, with median scores for small groups. Aptitude tests are listed "as accessory sources of information about the individual's capacity." They are classified under five main headings: artistic, musical, mechanical, sensori-motor, and clerical. Achievement tests for typewriting, stenography, bookkeeping, arithmetic, spelling, English usage, and vocabulary are described. Costs and publication sources are noted. A chapter is devoted to brief descriptions of personality tests. Interest inventories, personality questionnaires, rating scales, and record forms for interviewing are discussed. The interrelationship of abilities is considered in Chapter VII. The data are not based upon results obtained through the administration of the tests which have been described. Chapters are included covering the choice and administration of tests, case histories of guidance in the public employment office, and suggestions for private employers who are considering psychological aids to selection. Publishers of tests are listed. A selected bibliography and index are presented. This is essentially a manual describing available materials, not a research report.—R. S. Uhrbrock (Procter & Gamble Company).

494. Rhodes, L. K. The present use of intelligence tests in industry. *Psychol. Bull.*, 1937, 34, 563.—Abstract.—R. H. Brown (Clark).

495. Schultz, W. Erbgut, Erziehung und berufliche Leistung. (Inheritance, education and voca-

tional performance.) *Dtsch. Berufserzieh.*, 1937, 52A, No. 33/34.—P. L. Krieger (Leipzig/Munich).

496. Smith, M. Psychology in industry. *Brit. med. J.*, 1937, Part 1, 503-505.—D. J. Ingle (Mayo Foundation).

497. Wyatt, S., Langdon, J. N., & Stock, F. G. L. Fatigue and boredom in repetitive work. *Rep. industr. Hlth. res. Bd. Lond.*, 1937, No. 77. Pp. iii + 86. 1s.3d.net.—The amount of boredom experienced by 355 women doing repetitive work was found to be associated with the following personal characteristics: intelligence, inability to mechanize simple manual processes, temperamental tendencies which are extraverted rather than introverted, a desire for creative as distinct from repetitive work. But even slight differences between one type of work and another might be responsible for widely differing amounts of boredom in the same worker. Boredom was relieved by day-dreaming, talking, singing, listening to gramophone music (which also produced an increase in output which was greatest when the music was played for 75 minutes in the middle of the working spell). The most bored workers attached relatively more importance than the others to opportunities for promotion, opportunities to use their own ideas, and work which made them think; they also reported many more causes of discontent with working conditions. Thus undesirable working conditions and unsuitable temperamental qualities each reacted on the other.—M. D. Vernon (Cambridge, England).

[See also abstracts 123, 551.]

EDUCATIONAL PSYCHOLOGY

(incl. Vocational Guidance)

498. Allen, R. D. Socializing attitudes and experience in the classroom. *Understanding the Child*, 1937, 6, 10-13.—This article discusses the need for a pedagogy of behavior as well as of subject matter and skills. Procedure is outlined for the treatment of behavior as part of the instructional responsibility of the school, with emphasis placed upon prevention rather than upon remedy of behavior difficulties.—F. G. Allen (Brown).

499. [Anon.] Occupations in aviation. *Occupations*, 1937, 16, 26-35.—Summary of literature: occupations in the field, abilities essential to success, training, compensation, etc. References.—R. H. Brown (Clark).

500. Bennett, A. Remedial reading in secondary schools. *Psychol. Bull.*, 1937, 34, 547.—Abstract.—R. H. Brown (Clark).

501. Bienstock, S. Report of national survey of experimental projects in music education. *Yearb. Music Educ. nat. Conf.*, 1936, 277-283.—Survey of certain of the articles listed in the bibliography by Bienstock and McDavid.—P. R. Farnsworth (Stanford).

502. Bienstock, S., & McDavid, N. Bibliography of studies in the field of music education. *Yearb.*

Music Educ. nat. Conf., 1936, 284-288.—Includes references to studies in progress as well as to those recently published.—P. R. Farnsworth (Stanford).

503. Bond, E. A. A method of selecting subnormal children for a vocational school. *J. juv. Res.*, 1937, 21, 188-193.—Children of ages 12 to 16 inclusive retarded in school one-half year or more, those recommended for vocational training, those with low reading scores, and those with failing work in any subject were tested. The Henmon-Nelson group intelligence test and Gates silent reading tests were used. Of these cases 152 were later given the Stanford revision of the Binet-Simon test. The Modern school achievement tests were also used. 4 references are cited.—F. M. Teagarden (Pittsburgh).

504. Bryan, R. C. Pupil rating of secondary school teachers. *Teach. Coll. Contrib. Educ.*, 1937, No. 708. Pp. vi + 96.—A scale for rating teachers was developed and administered to 900 junior high school pupils (94 teachers) and 600 senior high school pupils (30 teachers). The teachers were also rated by two or three administrators. The results are analyzed and recommendations made. The scale, a complete copy of which is given, is found useful and reliable. The bibliography lists 33 titles.—J. M. Stalnaker (Princeton).

505. Center, S. S., & Persons, G. L. Teaching high school students to read; a study of retardation in reading. New York: Appleton-Century, 1937. Pp. xviii + 167. \$2.25.—In Theodore Roosevelt High School, New York City, an attack was made upon the problem of chronic retardation in reading. The results are described here, largely in statistical form. The Terman group test and the New Stanford reading test were used to determine abilities of students entering high school. 64% were found to read below ninth grade level, 25% below sixth grade. Those with IQ's of 89 or below who were retarded at least a year in reading, and also those with greater retardation, were given individualized remedial instruction. Shifting of emphasis in the English curriculum to reading as the correlating center does not mean excluding reading of the classics, but lays a foundation for appreciation of them. Lack of reading ability means lack of the means of acquiring an education and condemns the pupil to repeated failures destructive of morale and wasteful of time and money. Reading should be taught in all grades of elementary and high schools. Postponement of remedial work to high school is costly because it necessitates unlearning bad habits. In obscure disabilities the ophthalmograph and the metronoscope may be used for diagnosis and correction.—M. P. Montgomery (Faribault, Minn.).

506. Committee on Educational Research, University of Minnesota. The effective general college curriculum as revealed by examinations. Minneapolis, London: Univ. Minnesota Press, Oxford Univ. Press, 1937. Pp. xvi + 427. \$3.00.—This volume describes the methods used at the University of Minnesota General College in ascertaining the

effective curriculum, that is, that part of the ostensible curriculum which is actually effective in altering the minds and behavior of students. The effective curriculum is ascertained by comprehensive examinations of a type designed to exhibit not merely the student's information but something of his attitudes and his powers of applying what he has learned to the solution of novel problems. Part I describes the theory of the effective curriculum and the plan of the General College—organized in 1932 to give students who cannot spend four years in college as broad a cultural training as possible—together with the experimental program of examinations by which a knowledge of the effective curriculum is reached. Part II describes the various fields—contemporary studies, eugenics studies, etc.—into which the curriculum is divided, and indicates the type and characteristics of the comprehensive examinations used in those fields. Part III contains studies of related problems.—C. K. Trueblood (Harvard).

507. Crawford, G. W. The Talladega manual of vocational guidance. Talladega, Ala.: Talladega College, 1937. Pp. 156. \$1.00.—R. R. Willoughby (Brown).

508. Eastburn, L. A. Report of class size investigations in the Phoenix Union High School, 1933-34 to 1935-36. *J. educ. Res.*, 1937, 31, 107-117.—The efficiency of instruction in large and small classes was measured by the results of standardized tests (Columbia Research Bureau English Test; Iowa Placement Test, English training; and Iowa High School Content Examination, literature section), by new-type objective tests, and by estimates of teachers conducting the classes with the Hand-Carley student reaction form. 6 teachers and 360 students were used in the investigation. The students were divided on the basis of the placement tests into large and small classes of three levels of ability. For all levels of ability the children in the large classes did better than those in the small classes as measured by standardized and other objective tests. The author implies that only some teachers can handle large classes as effectively as the small classes.—S. W. Fernberger (Pennsylvania).

509. Edmiston, R. W. The effects of emphasizing "how to learn" upon knowledge of course content and school marks. *J. educ. Psychol.*, 1937, 28, 371-381.—In a first experiment 50 students were taught elementary psychology for one semester without stressing principles and methods of learning, and another group of 50, equated in terms of intelligence and achievement, were taught the same course with emphasis on methods and principles of study. At the end of 18 weeks the "how to study" group had shown a significant average improvement $D/(P.E.D = 3.00)$ in psychology grades, and a comparable improvement in grades in other courses; the other group showed no significant change in average grades of either type. A comparison of the grades of these groups during the following semester revealed that the difference produced by the special training had been transitory. In a second experiment a low-

ability group of 50 students was given training in how to study, and registered a marked improvement in psychology grades but no improvement in other grades. Re-analysis of the data obtained in the first experiment revealed that the carry-over of the "how to study" training to courses other than psychology was limited to the students of the higher ability levels.—*A. W. Melton* (Missouri).

510. Eells, W. C. Judgments of parents concerning American secondary schools. *Sch. & Soc.*, 1937, 46, 409-416.—Some results are given of the cooperative study of secondary school standards begun in 1933. Parents of the seniors in 200 schools on the whole rate the schools "very satisfactory," private schools being rated in general above public schools. Schools in the south were most often rated satisfactory and in the northeast least often. Schools were judged to be most successful in training for character and citizenship and least successful in vocational guidance. Many comments are quoted verbatim.—*M. Lee* (Chicago).

511. Feingold, G. A. Adjusting the curriculum to mental capacity. *Educ. Adm. Supervis.*, 1937, 23, 354-366.—After studying the difficulty among various subjects and between successive stages of high-school subjects, the author concludes that pupils with IQ's of 105 and above can do 50 to 100% more work than those with IQ's of 100 and less, and that the great variation in the percentage failing in the same subject from year to year, or at different stages in a given subject, indicates a lack of scientific method in examining educational achievement.—(Courtesy *J. educ. Res.*)

512. Fletcher, B. A. The backward child and the teacher. *Understanding the Child*, 1937, 6, 18-22; 32.—The author defines the meaning of backwardness and discusses the physical, intellectual, and emotional causes of backwardness. The advantages and dangers of the special class are pointed out, and suggestions given of methods the teacher may employ with the backward child in the ordinary classroom.—*F. G. Allen* (Brown).

513. Fontègne, J. L'orientation professionnelle au Congrès International de l'Enseignement Technique (Rome). (Vocational guidance at the International Congress on Technical Education.) *Tra-vail hum.*, 1937, 5, 319-335.—Review of papers presented under four topics: physical education, manual work, growth and attitude as contributing to vocational guidance problems, physical and mental tests. Special exercises or brief courses of training are suggested which might be useful in various vocations.—*H. E. Burt* (Ohio State).

514. Franzen, R., Derryberry, M., & McCall, W. A. Manual of directions for health awareness test. New York: Bureau of Publ., Teachers College, Columbia Univ., 1937. \$3.20 C.—This is a manual of directions, tabulation sheet, and directions for scoring of a group test of health information, attitudes, and practice, applicable in grades 4 to 8. The test comprises a story test, a matching test,

and a true-false test, constructed from tests developed by the School Health Study of the American Child Health Association. "The reliability and validity are high, independent of intelligence. Norms are based on data from 75 cities scattered throughout the country. Testing time required is 30 minutes per class."—*F. G. Allen* (Brown).

515. Gillentine, F. M. Why do college students cheat? *Peabody J. Educ.*, 1937, 15, 15-17.—An attempt was made to determine why college students cheat and to eliminate cheating in courses in child psychology and in tests and measurements. The conclusion was reached that cheating can be reduced almost to zero by (1) organization of material, (2) establishing a democratic relationship, and (3) eliminating fear of the final examination.—*N. B. Cuff* (Eastern Kentucky State Teachers College).

516. Hartmann, G. W., & Stephens, D. T. The optimal teaching sequence for elementary physical principles based on a composite scale of pleasure-value and difficulty of insight. *J. educ. Psychol.*, 1937, 28, 414-436.—The purpose of the study is to discover an order of exposition of physical principles adapted to the average student of high-school physics. 144 principles that appeared in each of six textbooks of physics were scaled in terms of difficulty by means of a composite score of 12 superior students on five "application" questions involving each principle. The percentages of correct answers for the major groups of physical principles were: heat principles, 88.72; mechanics, 86.18; light, 83.21; sound, 80.10; and electricity, 78.56. In a second study, 252 students who had just finished a course in elementary physics rated each of the 144 principles on a 7-point scale of pleasure-aversion. The mean "pleasure indices" for the different divisions of physics were: light, 1.101; mechanics, 1.054; heat, 1.007; sound, 1.004; and electricity, .718 (all slightly pleasant). The *r*'s between difficulty and pleasantness ranged between .56 and .75 for the various divisions of physics. The odd-even reliability coefficient for the interest test was .94, and the correlation between the pleasure ratings for the 144 principles, as determined by two groups of 75 S's, was .93. In an appendix the difficulty ratings and interest ratings of each of the 144 principles are presented together with a rating which combines the difficulty and pleasure ratings with equal weights. The possible applications of the scale in the reorganization of the teaching of high-school physics are discussed.—*A. W. Melton* (Missouri).

517. Hill, G. E. Improving ability in the mathematical concepts of educational statistics. *J. educ. Psychol.*, 1937, 28, 461-464.—This report describes the writer's efforts to overcome weaknesses in the simple arithmetic and algebraic processes in students in elementary educational statistics. The students made significant gains in mathematical ability during a single semester. The writer believes a test of such abilities and remedial instruction where needed will improve the effectiveness of courses in statistics.—*A. W. Melton* (Missouri).

518. Hill, T. B., & Verco, D. J. A. [Eds.] *The education of the mentally handicapped children*. Melbourne, Australia: Melbourne Univ. Press, 1937. Pp. 104.—Data dealing with many aspects of this problem were gathered by questionnaire from most of the important countries of the world. This is a report of the survey and brings together comparative information regarding the provision of the organized schemes, methods of selection, training of teachers, effectiveness of instruction, and curriculum. Bibliography.—(Courtesy *J. educ. Res.*)
519. Hoban, C. F., Hoban, C. F., Jr., & Zisman, S. B. *Visualizing the curriculum*. New York: Gordon, 1937. Pp. xvi + 304.—This book is written for teachers in training and administrators. It is intended for use in connection with—not apart from—laboratory experience. It includes discussion of the value of the school journey, museum materials, moving and still pictures, maps, posters, charts and blackboards, and illustrative explanation of the way to use them. It emphasizes the necessity of correlating these visual aids with other teaching materials, and describes the technique of integration and the solution of difficulties of administration. The book is profusely illustrated and contains a particularly lucid table of contents and index, as well as bibliographies.—*M. P. Montgomery* (Faribault, Minn.)
520. Hopkins, L. T. *Classroom experimentation in functional music*. *Yearb. Music Educ. nat. Conf.*, 1936, 298-302.—The researches of psychologists in the field of music are criticized as being too atomistic. The "functional approach," based on the philosophy of Columbia's Teachers College, is praised.—*P. R. Farnsworth* (Stanford).
521. Hopkins, L. T., & others. *Integration; its meaning and application*. New York: Appleton-Century, 1937. Pp. xiii + 315. \$2.00.—An outcome of study and research by ten specialists in various fields of learning, under the auspices of the Society for Curriculum Study, Committee on Integration, this book is designed to clarify the meaning of the term *integration*, and to consider its application in practical situations found in different types of schools. The first chapters are devoted to the defining of integration and evidence as to its function, followed by chapters representing the viewpoints of a philosopher, a biologist, a psychiatrist, a psychologist, an artist, and a sociologist. The last five chapters discuss and evaluate various types of curricula, particularly the "correlated curriculum," the "broad-fields curriculum," the "core curriculum," and "experience curriculum," concluding with the broader problem of courses of study, all in terms of their integrative effectiveness. The point of view represented by the conclusions is that the criterion of any curriculum should be "the extent to which it directly contributes to helping each student to become increasingly integrated within himself and with his environment on succeeding higher levels."—*D. Bailey* (Mt. Holyoke).
522. Horn, E. A., & Main, Z. Empirically determined grade norms as a factor in the educational maladjustment of the "average" child. Part I. A critical evaluation of actual grade placements of children in the 90-109 IQ group. *J. educ. Res.*, 1937, 31, 81-89.—An investigation of present grade norms as measures of achievement for the average child, by consideration of the data on grade placements of 4831 cases in 31 Los Angeles schools falling within this IQ group. Information was obtained on chronological age, actual grade and IQ as determined by "national standardized group intelligence tests." The results indicate that the "average" child tends to be placed slightly lower than both the chronological grade placement norm and the mental-age grade placement norm.—*S. W. Fernberger* (Pennsylvania).
523. Hoskins, A. B. The effectiveness of the part and the whole methods of study. *Peabody Coll. Contr. Educ.*, 1936, No. 189. Pp. 45.—The author has attempted to obtain experimental data on the part and the whole methods of study-learning in contradistinction to memorization-learning. He defines study as three repetitions or readings. Units of material for study were arranged in a graduated scale from the shortest unit (1874 words) to the longest unit (15,000 words). The subjects were 360 college students. The groups were equalized and then reversed for Part II. The writer concludes that the method of study-learning may remain a matter of personal preference, that generalizations based upon data for memorization-learning are unwarranted, and that no reliable difference exists between the two methods.—*N. B. Cuff* (Eastern Kentucky State Teachers College).
524. Jalota, S. S. *Handbook of successful preparation for examinations*. Lahore: Careers, 1936. Pp. ii + 92. Re. 1.—A book of good advice for students, dealing with the following topics: how to read; attention; memory; fatigue and nervousness; how to write; arrangement and timing of answers; revision. References for further study are given.—*F. C. Bartlett* (Cambridge, England).
525. Krampf, A. *Gedanken zum Ausleseproblem. Eine erziehungswissenschaftliche Studie*. (Thoughts on the selection problem. A study in the science of education.) Leipzig: Armanen-Verl., 1937. Pp. 32. RM. 0.60.—*R. R. Willoughby* (Brown).
526. Kurt, V. *Charakter und Beruf*. (Character and vocation.) Bern: Author, Brunnmattstr. 34, 1936. Pp. 11.—*R. R. Willoughby* (Brown).
527. Line, W. The study of individual differences as a basis of guidance. *Understanding the Child*, 1937, 6, 14-17; 32.—The weaknesses of the old system of guidance, with school work divorced from the finding of a suitable vocational interest, are discussed. With the recognition that neither personal aptitudes nor jobs are static, the question of guidance concerns the whole field of education and involves a careful appraisal of development from the earliest years.—*F. G. Allen* (Brown).

528. Lloyd-Jones, E. The teacher's role in personal and social relationships. *Understanding the Child*, 1937, 6, 7-9.—Children carry over important personal and social relationships into the classroom. The author discusses the emotional significance that teachers possess for all their pupils and the reactions of the average unsophisticated teacher toward her pupils as individuals. Future teacher training will provide more information as to the nature of children.—F. G. Allen (Brown).

529. McGregor, D. Should there be academic prerequisites for graduate work in psychology? *Psychol. Bull.*, 1937, 34, 501-509.—Report of results from a questionnaire returned by 41 "successful" psychologists and by 41 members of a control group. The "successful" psychologist is trained in mathematics and physics more often than the average psychologist. All members of the profession agree on the desirability of adequate scientific and mathematical training at the undergraduate level.—R. H. Brown (Clark).

530. Mehlem, R. Der Phantasieaufsatz in der Grundschule. (The fantasy composition in the elementary school.) *Dtsche Schule*, 1937, 41, 203-209.—At the appeal of F. Schneider's *Schulpraktische Psychologie* and F. Hermes's *Der Erlebnisaufsatz als Mittel zur Charakterforschung* the author attacks the neglect of the fantasy composition in the elementary school, since this can give weighty information about the mind and character of the child.—P. L. Krieger (Leipzig/Munich).

531. Moore, C. C. Note on the accuracy of judgment in pupil ability ratings. *J. educ. Psychol.*, 1937, 28, 391-393.—Five teachers ranked pupils whom they had taught for at least one year on intelligence, and the "relative placements" were later correlated with scores on the Otis group intelligence scale, advanced examination. The obtained r 's ranged between .49 and .67, and were not affected by the length of time the teacher had known the pupils.—A. W. Melton (Missouri).

532. Mursell, J. L. The place of music in the curriculum and in life. The viewpoint of the psychologist. *Yearb. Music Educ. nat. Conf.*, 1936, 39-42.—The values of organismic and mechanistic psychology for music education are contrasted by this expounder of Teachers' College (Columbia) philosophy. Organismic psychology wins.—P. R. Farnsworth (Stanford).

533. Nelson, E. Attitudes sought by colleges. *Sch. & Soc.*, 1937, 46, 444-447.—Considerable evidence exists that student attitudes change during a college course. In order to determine whether colleges consciously seek to produce specific attitudes in their students, the catalogues of 68 colleges and universities were examined and a statement of any attitudes mentioned in them as objectives was sent to the president for his confirmation or correction. The attitudes most often given were religious and spiritual. Only about half mentioned intellectual excellence and less than a third good citizenship. There is little evidence that institutions have either

carefully formulated their attitude objectives or taken any steps to produce them.—M. Lee (Chicago).

534. Paisley, M. A. Problems in cursive, manuscript and mirror handwriting. Winston-Salem, N. C.: Stewarts' Printing House, 1937. Pp. 69. \$1.50.—The discussion on cursive and manuscript handwriting is concerned with which form should be taught beginners, whether if manuscript is taught, it is necessary to change to cursive, and what is the best grade for making the change. Specimens of manuscript handwriting are graded into three qualities by pooled judgments. A chapter contains illustrative specimens of mirror handwriting collected from pupils in every-day classroom work; these may not seem to be handwriting until reflected in a small mirror. They are followed by specimens made during corrective practice to show the gradual improvement. Simple instructions for retraining are given.—J. W. Paisley (Winston-Salem, N. C.).

535. Parker, F. W. Talks on pedagogics; an outline of the theory of concentration. (Rev. ed.) New York: Reynal & Hitchcock, 1937. Pp. 363. \$2.50; \$2.00.—R. R. Willoughby (Brown).

536. Reinhardt, E. Opinions of a group of college students concerning their marks. *Sch. & Soc.*, 1937, 46, 447-448.—Students in education in the Eastern Illinois State Teachers College were asked to list courses taken in the winter quarter and to state (anonymously) whether they considered the marks too high or too low and why. Of 396 students 80% considered the marks satisfactory, 5% too high and 15% too low. The percentage of satisfaction varied with the height of the mark. Slightly more men than women were dissatisfied. The reasons given for thinking the marks too high were: did too little work, received lower marks during the quarter, and knew too little about the course. The reasons given for thinking the marks too low were: received higher marks during the quarter, worked hard, and did as well as others.—M. Lee (Chicago).

537. Sandiford, P., Cameron, M. A., Conway, C. B., & Long, J. A. Forecasting teaching ability. *Bull. Dep. educ. Res., Ontario Coll. Educ.*, 1937, No. 8. Pp. 93.—The authors present a review of the literature and describe two studies which were undertaken to find an effective method of reducing the surplus of certificated teachers, while improving the quality of teachers. In the first study tests were given students entering Ontario College in October, 1934; such tests are described and sample items included. In the second study the records of students who graduated in 1926 were traced for the subsequent ten years. Three highly reliable methods of rating the success of teachers have been devised in this investigation. The authors find that (1) teaching success has low correlation with college grades, (2) practice-teaching marks have some value in predicting success or failure, although the efficacy of these marks in predicting failure was far from complete, (3) students rejected in their first attempt to obtain teaching certificates were not likely to become successful teachers.—F. G. Allen (Brown).

538. Schmitz, S. B. Predicting success in college: a study of various criteria. *J. educ. Psychol.*, 1937, 28, 465-473.—This study compares the values of the following criteria for predicting success in college (success is measured by the total "quality" points divided by the number of credit hours): the American psychological test, the army alpha test, the Iowa reading test, high-school scholastic quotient, and the total score on all tests. The various criteria are of approximately equal value, and the author recommends the use of several in combination.—A. W. Melton (Missouri).

539. Schoonover, R. C. The Negaunee reading experiment. *Engl. J.*, 1937, 26, 527-534.—After it was recognized some years ago that compulsory assigned reading failed to accomplish desired results, a greater number and range of books were provided, freedom was given in selection, and more time was devoted to discussions of books and standards for appraising them. The average number of books read jumped from 15 to 55 per pupil per year. Some individual guidance was given. A study of the records of 56 seniors, their IQ's, their reading scores on the Thorndike-McCall reading scale, their scholastic achievement based on cumulative rank in class, and the total number of fiction books they read, revealed that: literate non-readers can be made interested in reading; guidance as well as exposure is necessary to get results; intelligence showed no particular relation to quality of reading selected; voluntary selection follows wholesome standards; and there is growth in taste. Among the conclusions were the following: the school is the greatest single factor in developing literary taste and appreciation; continuance of interest depends on the manner of administration; and psychologically sound incentives and guidance are essential, in addition to exposure to good literature.—D. Bailey (Mt. Holyoke).

540. Stuit, D. B. Scholarship as a factor in teaching success. *Sch. & Soc.*, 1937, 46, 382-384.—Using the data at the teacher placement bureau of the University of Nebraska, a comparison of the scholastic grades of the 100 teachers rated by superintendents as most successful with the 100 rated least successful showed the former to be higher. Of the successful teachers only 115 had grades below 80 and 19% were above 90, while of the inferior group one third were below 80 and only 13% above 90. The correlation between teaching and scholastic success is .314. Further analysis of the data also shows the relation of personality traits to success or failure.—M. Lee (Chicago).

541. Sturdyvin, E. M. Note on recognition versus recall as methods of testing spelling. *J. educ. Psychol.*, 1937, 28, 394-396.—320 first-year college students were given a recall spelling test and a recognition spelling test, each of 50 words. In the recognition form the students were given the choice of four alternative spellings. The r between the scores on the two tests was .884. It is recommended that the recognition test be used in place of recall tests of spelling.—A. W. Melton (Missouri).

542. Teagarden, F. M. The teachers' apron strings. *Educ. Forum*, 1937, 1, 437-449.—The author discusses the probable origin of the term "apron strings" and its connotation for teachers and schools as well as for the home. She points out that in addition to the usage in describing fetters, or shackles, "apron strings" has also come to mean "a veritable symbol of all that is old-fashioned and out of date." It is in this latter usage that the article demonstrates the presence of "apron strings" in dealing with school problems, especially those of truancy, failure, and behavior problems. Case studies contrast the difference between the old approach and the newer one in which the teacher tries to understand the "why" of conduct.—D. Bailey (Mt. Holyoke).

543. Thomas, M. E. An enquiry into the relative efficacy of broadcast and classroom lessons. *Aust. Coun. educ. Res. Ser.*, 1937, No. 48. Pp. 48.—The aim of this study was to determine whether broadcast or oral information lessons are the more effective means of instruction. Topics from geography, history, arithmetic, English usage, and nature study were used. Paired groups were formed in the fourth and fifth classes in each of four typical suburban primary schools in Sydney. The author concludes that "under the conditions laid down in the report the results showed no significant differences between the effectiveness of broadcast lessons and oral lessons. . . . The obtained differences, although insignificant, manifested a definite tendency to favour the control groups."—F. G. Allen (Brown).

544. Tucker, L. E. A study of problem pupils. *Teach. Coll. Contrib. Educ.*, 1937, No. 720. Pp. vii + 172.—100 trouble-makers (teachers' judgment) are compared with 100 non-trouble-makers on a series of measurements. Both groups are negroes selected from grades 3 to 6 of one school. The trouble-makers have a lower IQ, are over-age, frequently late to school, have somewhat greater defects in nutrition, vision, teeth and tonsils. Only in leadership is the trouble-maker superior. His parents in general lack education. Summary sketches are given of each of the 100 trouble-makers. Case studies for 21 of them are given. The bibliography lists 79 titles.—J. M. Stalnaker (Princeton).

545. Weber, C. O. The use of tachistoscopic exercises in the improvement of reading speed. *Psychol. Bull.*, 1937, 34, 533-534.—Abstract.—R. H. Brown (Clark).

546. Weimershaus, A. Kulturgestalt und Erziehung. (Cultural pattern and education.) *Erziehung*, 1937, 12, 458-466.—Weimershaus is concerned with carrying over Gestalt thinking into teaching. A new "intuitive" theory of education—like a new culture in the sense of L. Frobenius—must advance from mere extension (dimensionality) to intensity, from pure form to essential nature and Gestalt. Only here is found a true synthesis and synopsis. Presentation of a mere multiplicity of disconnected facts has no educational value. It remains biologicistic or

mechanistic, as in the time of "experimental didactics."—*P. L. Krieger* (Leipzig/Munich).

547. Williams, R. L. Language elections made by freshmen of the University of Michigan. *Sch. & Soc.*, 1937, 46, 447-480.—The records of 992 freshmen in 1936-7 were studied to determine the effect of language study in high school on the choice of language and success in its study in college. There is some indication that: the language in which one has received the best marks in high school is most often the one continued in college; the students who continue their high school language have a slightly higher score on a psychological examination than those who begin a new language; the students who have just had the same language in high school obtain better grades in it in college than those who have not had it at all or who studied it several years earlier; studying any language in high school just before studying any language in college results in better grades in the latter.—*M. Lee* (Chicago).

548. Williamson, E. G. Scholastic motivation and the choice of a vocation. *Sch. & Soc.*, 1937, 46, 353-357.—To test the assumption often made that students who have made a vocational choice do better work in college than those who have not, the records of 860 freshmen enrolled in the college of science, literature and arts at the University of Minnesota in 1935 were analyzed. The high scholarship, scholastic aptitude and college achievement of the 30% who were undecided were, in the case of the men, not significantly lower than those of the rest of the group, and in the case of the women they were slightly higher. The author suggests that it may be that motivation supplied by a vocational choice is effective only if the choice is commensurate with the individual's ability, and that those students who have made unwise choices are in as much need of guidance as those who have made none.—*M. Lee* (Chicago).

549. Wrenn, C. G. Vocational guidance and the college curriculum. *Occupations*, 1937, 16, 36-40.—Discussion of the restricting influence regimentation in the college curriculum has upon vocational guidance, and also of significant trends in vocational guidance.—*R. H. Brown* (Clark).

[See also abstracts 81, 313, 349, 359, 381, 398, 443, 445, 483, 495, 554, 563, 566, 574, 577, 596, 599.]

MENTAL TESTS

550. Alexander, W. P. Thanet mental tests. London: Univ. London Press, 1937. Handbook, 1s. net; school aptitude test, 4d; arithmetic test, 6d; English test, 3d.—The Thanet mental tests have been prepared for the use of education authorities in England in selecting children aged 11 years for secondary education. They comprise an aptitude or intelligence test and minimum essentials tests in arithmetic and English. The aptitude test is designed to measure "g" in combination with "v" (verbal factor), since "there is evidence that these two factors are about equally important, relatively,

in examination success in secondary schools." The arithmetic test gives simple computations, but no problem solving; the English test, tests for comprehension, punctuation and spelling, but none for composition or grammatical expression. Instructions for administration and scoring are given, with tables of norms taken from large groups of previously examined children. It is recommended that a pupil selected for secondary school education should have an IQ, on the aptitude test, not below 115 and preferably above 120, and a score on the arithmetic and English tests not below normal.—*M. D. Vernon* (Cambridge, England).

551. Candee, B., & Blum, M. A new scoring system for the Minnesota clerical test. *Psychol. Bull.*, 1937, 34, 545.—Abstract.—*R. H. Brown* (Clark).

552. Guilford, J. P. The psychophysics of mental test difficulty. *Psychol. Bull.*, 1937, 34, 562.—Abstract.—*R. H. Brown* (Clark).

553. Guilford, J. P. The psychophysics of mental test difficulty. *Psychometrika*, 1937, 2, 121-133.—By the use of the Seashore tests of pitch discrimination, intensity discrimination, time discrimination, and tonal memory, it is shown that the easiness of an item, as determined by absolute scaling methods, is proportional to the logarithm of the magnitude of the stimulus. It is suggested that this is a case of Fechner's psychophysical law, and that the unit of absolute scaling as applied to test items may become a satisfactory unit of S-scales in the more traditional psychophysical problem.—(Courtesy *Psychometrika*).

554. Ombrédane, A. Le problème des aptitudes à l'âge scolaire. (The problem of aptitudes in relation to scholastic age.) *Actual. sci.*, 1936, No. 439. Pp. 57.—The author calls particular attention to the question of finding out to what degree aptitudes, especially intellectual aptitudes, can be brought out through tests. He believes that the test method is a good one, but that it needs further refining. One important factor in perfecting the method would be the separation of various functions so that it would be possible to create tests which would deal exclusively with a single function. Moreover, when a test has been given to determine achievement, that is, when it has as its object the determination of success or failure, the results obtained indicate, for a given moment, the drift of the function of adjustment or of educability. In determining aptitudes it is essential to consider that a given achievement has prognostic value only to the extent that it is treated as a derivative of the function of adjustment.—*M. H. Piéron* (Sorbonne).

555. Otis, A. S. Otis quick-scoring mental ability tests: Beta test, for grades 4-9, forms A and B. Yonkers-on-Hudson, N. Y.: World Book, 1937. Price per package, net \$0.85; specimen set \$0.15. Gamma test, for high schools and colleges, forms A and B. Price per package, net \$0.90; specimen set \$0.15.—The Beta and Gamma tests are revisions and extensions of the Otis self-administering tests.

A new quick-scoring feature has been perfected. The average reliability as established by correlations between odd and even items corrected by the Spearman-Brown formula is .86 for the Beta test and .89 for the Gamma test.—*M. Keller* (Brown).

556. **Spearman, C.** *Les aptitudes de l'homme, leur nature et leur mesure.* (The abilities of man, their nature and measurement.) (Trans. by Brachet with a foreword by G. Dormois.) Paris: Conservatoire des Arts et Métiers, 1936. Pp. 350. Fr. 75.—This is a translation of the second edition, in which the author has added a revision of his section on group factors and a more efficient procedure for measuring specific factors.—*M. H. Piéron* (Sorbonne).

557. **Wytyczak, L.** *Analiza psychologiczna testu Ebbinghaus.* (Psychological analysis of the Ebbinghaus test.) *Trav. Inst. Psychol., Lwow*, 1935, 1, 1-26.—The author concludes that the Ebbinghaus (completion) test is unsatisfactory as a measure of intelligence. This conclusion is based largely on an introspective report of how the subject fills in the blanks in the test.—*H. E. Burr* (Ohio State).

[See also abstracts 50, 347, 414, 469, 494, 578.]

CHILDHOOD AND ADOLESCENCE

558. **Ames, L. B.** *The sequential patterning of prone progression in the human infant.* *Genet. Psychol. Monogr.*, 1937, 19, 411-460.—This is a study from the Yale laboratory in which 5 infants were studied and photographed over a period of at least a year, and 15 additional cases were studied somewhat less frequently. Behavior was analyzed into 14 items which "in an apparently inflexible order, constitute the sequence of patterns which can be observed during the development of prone progression." As in other investigations, development was found to proceed from head to foot, arm development coming before leg development. Individual differences were found in the age at which stages were reached. The literature is reviewed and 36 references are cited.—*F. M. Teagarden* (Pittsburgh).

559. **Anderson, H. H.** *Domination and integration in the social behavior of young children in an experimental play situation.* *Genet. Psychol. Monogr.*, 1937, 19, 341-408.—The author's definitions of domination and integration are given and comparisons are made with resistance and submission. 128 children of pre-school age were observed in an experimental play situation. Comparisons are made between boys and girls, nursery school and non-nursery school groups, and orphanage and non-orphanage children. 7 references are cited in the bibliography.—*F. M. Teagarden* (Pittsburgh).

560. **Anderson, H. H.** *An experimental study of dominative and integrative behavior in children of preschool age.* *J. soc. Psychol.*, 1937, 8, 335-345.—Groups of non-orphanage and orphanage nursery school children, and a control group of non-nursery school children from the orphanage, were observed for dominative and integrative behavior in experi-

mental situations. It was found that orphanage nursery school children were significantly more dominating and less integrative in behavior than the non-orphanage children and the control group of non-nursery school orphanage children. Dominative and integrative behavior as measured here do not correlate with each other, nor does dominative behavior correlate with chronological age, mental age, IQ, change in IQ, attendance at nursery school, or length of time at the orphanage; integrative behavior showed slight positive correlations with chronological age and mental age.—*E. D. Hunt* (Brown).

561. **Baar, E.** *Die geistige Welt des Schulkindes.* (The mental world of the school child.) Jena: Fischer, 1937. Pp. 129.—An attempt is made to clarify the existing vague concepts concerning the child's mental world on the basis of 1060 statements made by 9 children between the ages of 6 and 11 during 20-hour observations. Some of the findings are: (1) One-half of the statements had reference to the children's mental world, 25% expressed intellectual interests. More than three-fourths were factual, and 20% of these were questions. 90% were spontaneous. (2) Of 13 topics of conversation, statements concerning life were most frequent (20.4%), and 41.2% were specific rather than general. (3) Of the 12.4% which concerned the child himself, 35.9% referred to his achievements, while 6.6% contained self-criticism. (4) Three-fifths of the opinions expressed evaluations, which were primarily positive. Problems were mentioned in 6.4% of the statements and involved personal difficulties in 46.8% of the cases, while 73.2% had to do with conquering obstacles, which were subjective in 90% of the cases and involved achievements in 56.6%. In 12% of the statements a secondary social function was present, which involved the child's position in 52.3% of the cases. Individual deviations from this general picture are discussed and evaluated.—*H. Beaumont* (Kentucky).

562. **Bayley, N., & Stoltz, H. R.** *Maturational changes in rectal temperatures of 61 infants from 1 to 36 months.* *Child Developm.*, 1937, 8, 195-206.—An analysis of the rectal temperatures taken on a group of 60 children as they grew from birth to three years brings out several points. "Temperatures in infants tend to increase during the first seven months and to drop again between 24 and 36 months of age. The mean rectal temperatures for the total group vary for the different ages from 98.96 at month one to 99.76 at month eight and 99.83 at month eighteen, and drop back to 98.95 at month thirty-six." "There is some evidence that healthy children may have consistent tendencies toward high temperatures or toward low temperatures which are normal for them." "Aside from changes due to maturational and diurnal rhythms, these children's temperatures appear to be related to a number of factors. Among these factors are body build and possibly susceptibility to illnesses."—*F. D. McTeer* (Wayne).

563. **Bentley, J. E.** *The service to school and home of the child guidance clinic.* *Child Res. Clin.*

Ser., 1937, 2, No. 5, 19-27.—The author discusses the aims and ideals of the possible organization of a "School Guidance Clinic in the Public School," recommending the operation of such a clinic under a fourfold personnel covering the social, psychological, medical, and psychiatric divisions. Such a clinic would "introduce the rudiments of diagnosis and more nearly fulfil the ideals of a genuine physical mental health program in human society because it gathers the children in the formative stages of their development."—F. G. Allen (Brown).

564. Bowles, H. H. A study of nurses' attitudes toward the behavior problems of children under hospital care. *Child Develpm.*, 1937, 8, 282-288.—Judgments as to frequency and present and future seriousness of behavior problems of children under hospital care were obtained from 53 graduate and 171 student nurses on a questionnaire made up of 60 items taken from the Wickman and Stogdill studies. "Nurses rate as more frequent problems associated with an effort to get attention, and affecting only the welfare of the individual child. Transgressions against commonly accepted moral regulations are least frequently reported" (cruelty, obscenity, etc.). "Problems that conflict with the conventional code, and introvert tendencies, are considered by nurses as most serious both at the time they occur and for the future welfare of the child" (stealing and heterosexual activity). "Student nurses consider behavior that disturbs the peace of the ward, withdrawing tendencies, and demanding attention, as more serious than graduates do."—F. D. McTeer (Wayne).

565. Brody, D. Twin resemblances in mechanical ability, with reference to the effects of practice on performance. *Child Develpm.*, 1937, 8, 207-216.—The Minnesota spatial relations test, a form board designed to measure mechanical ability, was administered to 62 pairs of twin boys of grade school age, 29 of which were diagnosed as identical and 33 as fraternal twins. "The mean IQ of the fraternal twins was 97.5 and of the identical twins 99.3. Six successive trials on Boards A and B were given as a practice series. This was followed by the final test on Boards C and D." "An analysis based on intra-pair differences and on resemblance coefficients showed a markedly closer resemblance between identical twins than between fraternal twins. There is apparently no relationship between twin similarity and the number of practice trials."—F. D. McTeer (Wayne).

566. Chave, E. J. Personality development in children. Chicago: Univ. Chicago Press, 1937. Pp. xii + 354. \$2.50.—This book offers students and parents a pluralistic approach to problems of child guidance. Personality is presented as an entity built upon the influences of heredity, environment and the growing self. Knowledge of the operation of these three forces is essential. A comprehensive picture of total personality combining the biological, behavioristic, socio-psychological and functional-psychological points of view avoids the danger of

generalizing from incomplete data. Exposition of the hereditary forces of physique, emotions and intellect shows how they must be integrated in home, school and religious training to achieve an undivided personality. Particular problems of handicapped and maladjusted children receive special treatment.—M. P. Montgomery (Faribault, Minn.).

567. Clarke, F. M., Hunt, W. A., & Hunt, E. B. Plantar responses in infants following a startle stimulus. *J. genet. Psychol.*, 1937, 50, 458-461.—A sudden sound stimulus was found to release plantar responses in a group of 63 infants from eight days to one year in age. These responses are of varied types and show little relationship to such factors as age, limb withdrawal, and peripheral tone.—E. Heidbreder (Wellesley).

568. Crissey, O. L. The mental development of children of the same IQ in differing institutional environments. *Child Develpm.*, 1937, 8, 217-220.—Through the choice of groups matched for age, initial IQ, and interval of retesting comparisons were made of the direction and amount of change in IQ over a period of time between the residents of two Iowa homes for dependent children and the residents of two institutions for the feeble-minded located in the same state. "No colored children, epileptics, physical anomalies, or cases at the idiot or low imbecile levels were included." "The results show a reliable mean gain of 2.3 IQ points for the orphanage children, while their pairs in schools for the feeble-minded show a mean loss of 4.9 points. The difference is significant." (Difference, 7.2; critical ratio, 8.5).—F. D. McTeer (Wayne).

569. Dale, E. Child welfare and the cinema. *Engl. J.*, 1937, 26, 698-705.—In this address, given before the child welfare commission of the League of Nations in Geneva, the author refers to findings of Stoddard on the influence of moving pictures on general historical and geographical information, to those of Thurstone on attitudes, and to some investigations of his own. He reports that the portrayals of foreigners or colored persons were given a specific bias, being made ridiculous in 50% of the cases studied. In 42 pictures studied criminals were not punished at all in 25% of the cases, and in 13% were arrested only to be released or allowed to escape. Only 30 of 336 films (8.7%) released last year were rated as good for children; another 21.7% were rated as fair or doubtful, and the remaining 70% were found "poor." The increasing facilities for showing movies in schools and elsewhere than in theaters are pointed out, and further development is predicted. The action of 7 states making film discrimination and appreciation a part of the course of study is regarded as an encouraging sign.—D. Bailey (Mt. Holyoke).

570. Davis, E. A. Development in the use of proper names. *Child Develpm.*, 1937, 8, 270-272.—The proper names used by 436 children in 21,800 remarks were recorded under a standardized situation; subjects were selected at three discrete age levels, 5½, 6½, and 9½ years, on a percentage basis

that was representative of the Minneapolis-St. Paul population, the father's occupation being the criterion. "The numerical importance of proper names in children's language proved to be slight," less than 0.5% of all words used. "Analysis indicated that the persons named by the young child tend to be friends, teachers, and members of the family, while the older child mentions historical and fictitious characters." "A similar name trend appeared in the analysis of places mentioned. The young child refers to local places, while the older child mentions places at a distance."—*F. D. McTeer* (Wayne).

571. Fenton, N., & Wallace, R. Child guidance in California communities. Part 4. A statistical study of 1600 cases referred to the California bureau of juvenile research. *J. juv. Res.*, 1937, 21, 125-181. —Part 4 is not a survey but is rather a report on "diagnostic and therapeutic work with individual children" and "educational activities with parents, teachers, probation officers, and other adults." Numerous tables are given for age, racial background, mental age, type of problem, etc. A convenient summary table gives the incidence of symptoms and problems. 8 references are cited in the bibliography. —*F. M. Teagarden* (Pittsburgh).

572. Frank, J. What books for children? Guideposts for parents. Garden City, N. Y.: Doubleday, 1937. Pp. 380. \$2.00.—*R. R. Willoughby* (Brown).

573. Franzen, R. Validity of comparisons of current methods for estimating physical status. *Child Develpm.*, 1937, 8, 221-222.—The author criticizes the conclusions of E. L. Marshall's paper *A Comparison of Four Current Methods of Estimating Physical Status* (see XI: 4855) because that paper failed "to distinguish the severity of selection from the adequacy of the selection," because it made the assumption "that under-weight is synonymous with under-nourished," and because due consideration was not given to the basic data from which popular abbreviated applications are derived.—*F. D. McTeer* (Wayne).

574. Gardner, D. E. M. The children's play centre. London: Methuen, 1937. Pp. xv + 143. 3/6 net.—The author describes an experiment undertaken in a small town in England in connection with the training of teachers. In 1931 a play center was opened for certain children from the poorer quarters of the town. The student teachers took charge of this, and it was hoped that their experience would do something to bridge the usual gap between the teaching of psychological principles in their training courses and their appreciation of the precise nature of the practical problems involved in the handling of children. The general lay-out of the centre is described; typical evenings and kinds of play are depicted; such group activities as developed among the children are fully dealt with; individual children are given special attention, and remarks are added concerning the value of the experiment both for parents and for the student teachers.—*F. C. Bartlett* (Cambridge, England).

575. Hardy, M. C. Social recognition at the elementary school age. *J. soc. Psychol.*, 1937, 8, 365-384.—A study of the friendliness which a public school group expresses for individual members of the group shows that the children whom other children esteem highly, as a class, are superior to the average individual in the group. Social recognition during the elementary school years is closely related to the individual's ability to distinguish himself from his associates.—*E. D. Hunt* (Brown).

576. Harmon, C. Racial differences in reaction time at the preschool level. *Child Develpm.*, 1937, 8, 279-281.—Tests were given on the Miles reaction time board, ten trials with each hand, for 30 Italian children, 30 Mexican children, 28 Jewish children, and 13 Indian children. All ages were between 3½ and 6½ years. Results suggest "that there may be true racial differences in reaction time. Italian children showed a more mature type of reaction, age for age, than the other groups tested." After the Italian children reaction times increased in the following order: negroes, American whites (data on 270 cases in a previous study by Goodenough), Mexicans, Jews, and Indians.—*F. D. McTeer* (Wayne).

577. Hillyer, V. M. Child training. (2nd ed.) New York: Appleton-Century, 1937. Pp. 344. \$2.00.—*R. R. Willoughby* (Brown).

578. Honzik, M. P. The constancy of mental test performance during the preschool period. *Psychol. Bull.*, 1937, 34, 554.—Abstract.—*R. H. Brown* (Clark).

579. Hunt, W. A., & Clarke, F. M. The startle pattern in children and identical twins. *J. exp. Psychol.*, 1937, 21, 359-362.—The subjects of this study ranged in age from 3 to 14 years. Included were 10 pairs of identical twins. The subjects were photographed against a special screen with the camera running at 64 frames per second. The stimulus was the firing of a .22 caliber blank cartridge. The pictures were projected in slow motion and were scored by a committee of three persons. The typical startle pattern, consisting of head movement, lid reflex, characteristic facial expression, hunching of the shoulders, abduction of the upper arms, bending at the elbows, pronation of the lower arms, clenching of the fists, forward movement of the trunk, and bending at the knees, was found in all the subjects. Both the primary pattern and the secondary movements following expression of the pattern were greater than in adults. The pattern was found equally clearly in the negro race. Members of a pair of identical twins differed in the amount of their responses. In every case where tests for handedness were given, the twin showing the larger startle response showed mixed dominance, with some tendency to be left-handed.—*H. W. Karn* (Pittsburgh).

580. Hunt, W. A., & Clarke, F. M. The startle pattern in children and identical twins. *Psychol. Bull.*, 1937, 34, 516.—Abstract.—*R. H. Brown* (Clark).

581. Jolk, H. *Das Erleben der Macht im Kindes- und Jugendalter.* (The experience of power in childhood and adolescence.) Würzburg: Mayr, 1937. Pp. 70.—R. R. Willoughby (Brown).

582. Kawamura, E. *Die Beziehungen zwischen den Kopfmassen und der geistigen Ausbildung bei Hokuriku-Schulkindern.* (The relation between the size of the head and the mental development of Hokuriku school children.) *Kanazawa kabo Gyoseki*, 1934, 16, 1-44.—P. L. Krieger (Leipzig/Munich).

583. Keister, M. E., & Updegraff, R. *A study of children's reactions to failure and an experimental attempt to modify them.* *Child Develpm.*, 1937, 8, 241-248.—Two failure situations were devised, one to fit ten small odd shaped blocks into an almost too small box, the other to lift a heavily weighted box in order to get the toys underneath. The subjects were 82 children, ages 3 to 6 years, enrolled in the preschool laboratories of the Iowa Child Welfare Research Station. On the basis of their observed and recorded performance in these situations 15 children were chosen as a training group because of their immature and undesirable behavior. "The method of training consisted in introducing the child to a series of problems which grew progressively more difficult as the program of training proceeded." A puzzle box similar to but not identical with the first test situation provided the crucial test. "The behavior of the children after training was remarkably different from their behavior prior to training. Differences in the three items *attempts to solve alone*, *interest*, and *cries* are statistically significant." Responses of the trained group were also compared with a non-trained group both before and after the period of training. "All of the differences were in favor of the trained subjects in spite of the fact that previous to training the difference lay in the opposite direction."—F. D. McTeer (Wayne).

584. Kerr, M. *Children's drawings of houses.* *Brit. J. med. Psychol.*, 1937, 16, 206-218.—An age scale is attempted on the basis of drawings of houses. The children studied included 555 normal children, 70 mentally defective, and 60 emotionally disturbed, all between the ages of 6 and 14. Differences with age are not as apparent as in the tests based on drawings of human beings, although there is a tendency for increased elaboration of detail with age. A regression is noted at age 12. The drawings of mentally defective children are comparable to those of younger normal children. Long thin houses appear to be symptomatic of emotional disturbance. The drawings are therefore said to be influenced by two factors, intellectual development and emotional development or fixation.—E. R. Hilgard (Stanford).

585. Kuo, Z. Y., & Carmichael, L. *Film showing the ontogeny of embryonic behavior in the chick.* *Psychol. Bull.*, 1937, 34, 543.—Abstract.—R. H. Brown (Clark).

586. Kuo, Z. Y., & Shen, T. C. *Ontogeny of embryonic behavior in Aves. XI. Respiration in the chick embryo.* *J. comp. Psychol.*, 1937, 24, 49-58.—Development of respiration was studied by observing movements through transparent shell membranes and by recording them graphically in chicks taken out of the shell. Three respiratory stages are described. The data indicate that development of respiration is a slow and continuous process. No abrupt changes are evidenced either before or after hatching. Drying of the skin and CO₂ tension are factors involved in stimulation of pulmonary respiration. Allantoic circulation remains for a time after breathing is established. Bibliography.—N. L. Munn (Peabody).

587. Windle, W. F. *On the nature of the first forelimb movements of mammalian embryos.* *Proc. Soc. exp. Biol.*, N. Y., 1937, 36, 640-642.—Somatic movements in response to faradic stimulation were studied in cat embryos delivered by Caesarian section. Few reflexes were obtained in embryos less than 14 mm. long (age 23 days after insemination), though muscle masses contracted on direct stimulation. After 23 days shoulder movements were caused by the stimulation of points on the paw reached by sensory nerve fibers newly connected with association neurones of dorsal gray and motor neurones of the forelimb. No other movement accompanied this reaction. By 26 days a variety of reflexes appeared involving muscles at the same level or at levels rostral to stimulated muscles. It is concluded that these reflexes are not part of total mass reactions on first appearance. With progressive development of central reflex mechanisms more complex and integrated reflexes become elicitable.—H. Peak (Randolph-Macon).

588. Witt, M. *Über das soziale Verhalten von Jugendlichen innerhalb des Schullebens. Eine Untersuchung an Ostpreussen.* (The social behavior of youth during school life. An investigation in East Prussia.) Leipzig: (Phil. diss.), 1936. Pp. 56.—P. L. Krieger (Leipzig).

589. Woody, C. *An analysis of differences in the learning of bright and dull children.* *Univ. Mich. Sch. Educ. Bull.*, 1936, 8, 37-39.—R. R. Willoughby (Brown).

[See also abstracts 81, 87, 101, 102, 157, 187, 226, 272, 285, 297, 307, 313, 326, 363, 437, 442, 470, 480, 528, 530.]

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